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October

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Julian Jackson reports on plans for a Europe-wide electricity supergrid, which could be key to the EU achieving its 2020 carbon reduction goals

With the introduction of mandatory GHG reporting, this 10-page special report examines what carbon accounting software can offer organisations

Kye Gbangola describes the latest guidance from the Global Reporting Initiative and its new emphasis on materiality in sustainability reports

Jerome Baddley argues that the 1987 definition of sustainable development needs to be updated for the next generation of environment practitioners

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IEMA works alongside government, the media and industry to enhance the recognition of the profession and promote the importance of practitioners in combating climate change, working towards a low-carbon economy and building a sustainable future.

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Clear and present danger

The science is unequivocal and responsibility attributed: the world is warming and human activity is the cause. That is the conclusion of the fifth assessment of climate science by the Intergovernmental Panel on Climate Change (IPCC) (p.5). Global temperatures are likely to rise by between 0.3°C and 4.8°C on 1985–2003 levels by the end of the century and scientists are 95% certain that humans are to blame for the unprecedented warming of the Earth over the past few decades. Although an 0.3°C rise in global temperatures does not seem too dramatic, it's extremely unlikely that greenhouse-gas (GHG) emissions will be reduced sufficiently over the next 87 years to keep warming to this level in 2100, unless cuts are substantial and sustained. Currently, we are not even on a trajectory that will keep warming below the critical 2°C threshold.

Advances in climate modelling since the last assessment in 2007 mean scientists can now calculate a global carbon budget – the amount of CO_2 we can emit and keep warming below 2°C. Worryingly, the latest report reveals that we've already burned more than half the total budget. And, according to the World Resources Institute (WRI), we may have as little as 30 years left until the budget is spent completely. The IPCC puts the budget at around 1,000 gigatonnes of carbon emissions (GtC) from the start of the industrial revolution, and calculates that by 2011 531 GtC had already been emitted. That means that more than half the budget was used up over 250 years, and the WRI suggests that, under a carbon-intensive trajectory, the remaining 469 GtC will be exhausted by 2044. However, the 1,000 GtC budget is just for CO_2; when non-carbon dioxide emissions are factored in, the budget drops to 800 GtC, leaving just 269 GtC left to spend.

The latest assessment from the IPCC calculates the global carbon budget to keep warming below the critical 2°C threshold, and estimates that 53% had been spent by 2011

Despite the overwhelming consensus among climate scientists – the IPCC's assessment is based on the findings of 9,200 peer-reviewed papers, two-thirds of which have been published since 2007 – sceptics maintain that the climate models are flawed, having failed, for example, to predict the recent "pause" in surface temperatures.

The IPCC acknowledges that short periods of slower surface warming will occur. Between 1998 and 2012, for example, the surface of the Earth warmed at a rate of 0.05°C per decade – slower than the 0.12°C per decade trend since 1951. This is due to natural variability, says the IPCC, adding that trends based on short records are very sensitive to the beginning and end dates, and do not in general reflect long-term climate trends. The El Niño-Southern Oscillation is one such naturally occurring phenomenon, and 1998 was the second strongest El Niño year in the 20th century, helping to make it one of the warmest on record. Since then, there has been a series of volcanic eruptions and strong La Niña episodes, which both have a cooling effect. It's also worth pointing out that more than 90% of the heat trapped by GHGs since the 1970s has gone into the ocean, in effect "hiding" the heat from the surface but raising sea levels.

Sceptics may also ask why scientists are only 95% certain human activity is responsible for climate change? Well, 95% is pretty much the gold standard in certainty for scientists. Complete certainty is rare because there are so many factors they do not fully understand or over which they cannot exercise control – and that degree of caution does not apply only to climate science. As the IPCC unveiled its findings, EU climate commissioner Connie Hedegaard tweeted the right question: "Whose side are you on? Those who want to act on 95% certainty or those who gamble on the last 5%?"

Paul Suff, editor

Short cuts

Capital savings

New figures from the Energy Saving Trust reveal that London businesses could save a cumulative £200 million a year if just 10% of vans registered in the capital went electric. Analysis of business fleets by the trust found that switching to electric vehicles could cut fuel costs by up to 75%. Additional savings come from 100% capital allowances, the plug-in vehicle grant and exemption from congestion charge in central London. Savings on the congestion charge alone equate to around £2,200 a year per van, says the trust. "There is a strong business case for the adoption of electric vehicles," said the trust's knowledge manager, Caroline Watson. "The financial benefits of going electric are clear and relevant to all businesses, whether you're in the private or public sector or an SME or a larger organisation."

Backing biofuels cap

MEPs have endorsed draft legislation that would place a cap on the use of traditional biofuels and support a swift switch to biofuels from alternative sources. Under the Renewable Energy Directive (2009/28/EC) (RED), member states must ensure that renewable energy accounts for at least 10% of energy consumption in transport by 2020. Following fears that food crops were being used to produce biofuels instead of feeding people, the European Commission proposed in October 2012 to amend the RED by capping at 5% the amount of so-called first-generation biofuels – from sources such as vegetable oils – that could count towards the 10% renewable energy target. The European parliament has now voted in favour of a 6% ceiling on the use of such biofuels, while demanding that advanced biofuels, sourced from seaweed or some types of waste, contribute at least 2.5% of energy consumption in transport by the end of the decade. MEPs also backed plans to continue the "double-counting" of used cooking oil and tallow in achieving the target, and a 7.5% limit on bioethanol in petrol.

Parties fail leadership test

Individual government ministers and shadow ministers are working to promote the pro-environment agenda, but the same level of commitment is not reflected by the leadership of the three main political parties in Westminster, it's claimed. An assessment by a group of NGOs, including the Green Alliance and WWF, is warning that two decades of steady progress in UK environment policy is now threatened as a result.

The government and senior politicians are condemned for remaining largely silent about the UK's environmental goals since the 2010 election. The prime minister's promise that he would lead the greenest government ever has been devalued by the chancellor's framing of high environment standards as a threat to economic success, concludes the assessment. And, although the government's support for a strong fourth carbon budget is welcome, it is undermined by its plans to review the targets in 2014, which the assessment says has created uncertainty about the direction of low-carbon policy.

Ministers have not always shown a high regard for scientific evidence, say the NGOs, describing environment secretary Owen Paterson's questioning of the science of climate change as a "low point".

Electricity market reform is being poorly handled by Decc, which is headed by Liberal Democrat Ed Davey, says the assessment. Decc is described as overseeing an energy policy framework that risks a high carbon lock-in incompatible with the UK's legally binding carbon budgets.

Although the Labour opposition is congratulated for its commitment to a decarbonisation target for electricity generation, it is criticised for failing to signal that the environment will be among its priorities going into the next election.

Publication of the natural environment white paper is applauded, with former Defra secretary Caroline Spelman praised for bringing forward the document. The minister for climate change, Greg Barker also received a largely positive appraisal, singled out for advocating energy efficiency and decentralised energy.

Rising water security risks

Governments that fail to manage water risks will jeopardise growing populations and cities, economic growth and food or energy security, claims new research from the OECD.

The Paris-based organisation says that by 2050 more than 40% of the world's population will live under severe water stress and almost 20% could be exposed to floods. It calculates that the economic value of assets at risk from floods will reach $45 trillion by the middle of the century. Moreover, there is increasing risk of water pollution, which is adding to uncertainty about future availability.

Nearly all of the 34 OECD member countries forecast rising water risks due to climate change, with extreme events – floods and/or droughts – cited as a primary concern by 32 states. About half the countries surveyed noted that climate change impacts on water supply and sanitation are a key concern, with a similar number highlighting concerns about the impacts on water quality.

"We have been forewarned – there is no doubt these risks are increasing. Instead of just reacting to water crises, governments must assess, target and manage water risks proactively," said OECD secretary-general Angel Gurría.

The World Business Council for Sustainable Development, meanwhile, has published new guidance (lexisurl.com/iema16574) on building the business case for improving water management. *Water valuation: building the business case* aims to demonstrate the financial benefits for companies in engaging with water valuation and is supported by a review of 21 studies that illustrate how and why different firms have carried out water valuation. Among the examples is the questionnaire used by Yorkshire Water to determine how much people are willing to pay for improved water provision.

Warming is 'unequivocal', confirms IPCC assessment

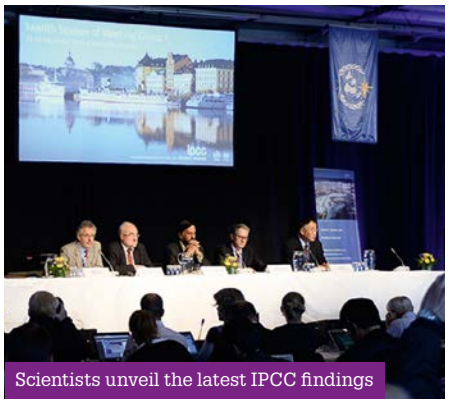
Substantial and sustained reductions in greenhouse-gas (GHG) emissions are required to limit the escalating warming of the planet, the authors of the latest report from the Intergovernmental Panel on Climate Change (IPCC) conclude.

Thomas Stocker, co-chair of working group I, which produced the report, said: "As a result of our past, present and expected future emissions of carbon, we are [locked into] climate change, and the effects will persist for many centuries even if emissions stop. Continued emissions will cause further warming and changes in all components of the climate system."

The report is the first of four that will be published by the IPCC over the next year as part its fifth assessment of climate science and is based on 9,200 peer-reviewed papers. It describes the warming of the Earth's climate system as "unequivocal", and says many of the observed changes are unprecedented over millennia.

Human influence on the climate system is clear, with human activities extremely likely to have been the dominant cause of the observed warming since the mid-20th century, conclude the scientists. They confirm that each of the past three decades has been successively warmer at the Earth's surface than any preceding decade since 1850, with concentrations of CO_2 increasing by 40% since pre-industrial times, primarily from fossil fuel emissions.

The document includes projections of climate change based on a new set of four scenarios of future GHG concentrations. Projections for changes in global surface temperature by the end of the century range from 0.3°C to 4.8°C compared with 1985–2003 levels. The report notes that warming over land will be greater than over the ocean.



Scientists unveil the latest IPCC findings

Governments have pledged to limit temperature rise to 2°C to avoid potentially dangerous consequences, and the report makes it clear that staying below that threshold will mean leaving large amounts of fossil fuels in the ground. To stay below 2°C total global emissions must not exceed 1,000 gigatonnes of carbon (GtC), warns the IPCC. By 2011, 531 GtC had already been emitted.

"Without immediate reductions in global emissions of GHGs, the world will not be able to achieve the political target of limiting the increase in global mean surface temperatures to 2°C, but rather we are likely to see an increase of 3°C–5°C," commented Professor Robert Watson, director of strategic development at the Tyndall Centre for Climate Change Research. "Time to act is running out if we are to take the threat of human-induced climate change seriously."

Headlines from the IPCC report

- Each of the past three decades has been successively warmer at the Earth's surface than any preceding decade since 1850.
- Levels of greenhouse gases in the atmosphere are unprecedented in the past 800,000 years.
- Concentrations of CO_2 have risen by 40% since pre-industrial times, primarily from fossil fuel emissions; 2,000 GTC have been added to the atmosphere since 1751.
- In the northern hemisphere, 1983–2012 is likely to have been the warmest 30-year period in the past 1,400 years.
- Human influence has been detected in warming of the atmosphere and the ocean; in changes in the global water cycle; in reductions in snow and ice; and in global sea level rise.
- Ocean warming accounts for over 90% of the energy accumulated in the climate system in 1971–2010.
- The rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia. Sea level rise will be between 26cm and 82cm by 2100.

Short cuts

Fighting alien invasion

New legislation to prevent and manage the rapidly growing threat from invasive species in Europe has been proposed by the European Commission. The commission estimates that more than 12,000 species in Europe are alien to the natural environment, and cause damage worth at least €12 billion each year. Invasive alien species can seriously damage ecosystems and cause the extinction of species that are needed to maintain the balance of Europe's natural environment, says the commission, citing the example of grey squirrels, which are outcompeting red squirrels. The commission claims that, after habitat loss, invasive alien species is the largest cause of biodiversity loss in the world. Its proposals include member states drawing up a list of invasive alien species of concern, based on risk assessments and scientific evidence. Under the plans, selected species will be banned from being imported into Europe.

Free-to-air learning

The University of Nottingham is offering a free course on sustainability as part of a new venture in social online learning. The university is part of FutureLearn, an online platform offering free course content from the top universities in the UK. The course, entitled Sustainability, society and you, explores sustainability and how individuals can have a real impact on the future. It aims to help individuals develop an understanding of the values and principles associated with sustainability, as well as the knowledge and understanding required to make sustainable decisions in their personal and professional lives. Course leader Dr Sarah Speight says that learners will investigate sustainability from multiple angles, with the syllabus covering: a historical perspective on sustainability; the big issues for our world; and organisations and sustainability. The course begins in January 2014 and registration is now open (lexisurl.com/iema16580).

In Parliament

Fracking all over the UK?

We've had a summer of fracking. Or rather, a summer of non-fracking as Cuadrilla, the company behind the test drilling in Sussex, has struggled to maintain any work in the face of determined protests. I do not believe that drilling and fracking is inherently unsafe and should therefore never be countenanced – though the huge amounts of water needed for fracking may well give us pause for thought in areas of the country already suffering considerable water stress.

What I am concerned about is what the fracking policy might look like. It's remarkable that unconventional gas does not seem to feature in any energy policy, strategy or forward energy mix projections. We appear to be rushing in without clear thought. Do we want to pull out of the ground, for the good of the country, the 6%–10% of shale gas deposits that are likely to be recoverable? Or do we want to pursue a more modest strategy and replace the UK's dwindling North Sea supplies?

In asking these questions we also need to consider, based on what we know from the US, just what that means in terms of wells. Unlike North Sea production, shale gas wells deplete very quickly. They need to be re-fracked or redrilled, and each one produces only a fraction of the lifetime output of a conventional gas well.

If we want to extract all the shale gas easily available, we would have to drill and redrill around 100,000 wells across the country over 50 years. If we wanted just to replace existing gas supplies with 10% shale gas, perhaps 18,000 wells would be worked over the same period. Fracking wells are, of course, drilled in batches – with six on a "pad" the size of two football pitches – but even so, several thousand such pads would have to be concentrated across North West England, Sussex and Hampshire, where the best shale gas seams are, and I don't think that is going to happen.

Alan Whitehead, Labour MP for Southampton Test and a member of the House of Commons energy and climate change committee.

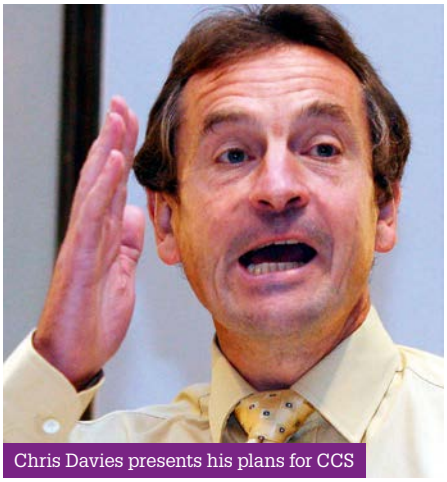
MEP plans to rescue CCS

The proceeds from the sale of 600 EU emissions trading scheme allowances could be used to support carbon capture and storage (CCS), according to MEP Chris Davies. The recommendation comes from his new plan to revive the development of the technology in Europe.

Davies, the Liberal Democrat's environment spokesperson in the European parliament and a regular columnist in *the environmentalist*, is also promoting a "polluter pays" system of certificates paid for by importers and producers of fossil fuels that would subsidise new CCS technologies as part of the price of oil, coal and gas.

Presenting his proposals to the parliament's environment committee, Davies warned: "Without commercially viable CCS [governments] will back themselves into a corner that contains blackouts or runaway climate change."

Europe will fail to deliver by 2015 the 12 demonstration projects envisaged by the European council in 2008, according to Davies, despite the creation of the NER300 funding mechanism. "Sadly, there is little to show for this initial enthusiasm," he said.



Chris Davies presents his plans for CCS

Davies' proposals came as the Norwegian government withdrew its support for the development of a full-scale CCS plant at Mongstad, the world's largest testing facility. It blamed the low price of carbon and the recession for reducing commercial interest in CCS. "At both the national and international level, the development of [CCS] has taken longer, been more difficult and more costly than expected," said minister Ola Borten Moe.

Renewables power ahead

Renewable energy technologies generated 15.5% of the UK's electricity in the second quarter of 2013, up from the 9.7% recorded in the same period in 2012, according to Decc. The latest statistics also reveal that renewables generated 12.8 TWh of electricity over the three months, a 55.8% rise on the 8.5 TWh last year.

Overall renewable electricity capacity at the end of June 2013 totalled 19.5 GW, a 38% increase on a year earlier, and all renewable technologies recorded a rise in electricity generation. Onshore and offshore wind generation were 69.9% and 50.9% higher respectively, while bioenergy generation was up 58.3%.

Decc reports that electricity from onshore wind facilities increased from 2.2 TWh to 3.8 TWh, due to increased capacity and high wind speeds. The return of the Tilbury power station – which was converted to biomass in 2011 – to operations earlier this year after a fire, as well as the conversion of the Ironbridge power station and one unit at the Drax power complex to dedicated biomass pushed, bioenergy generation up from 3.3 TWh in the second quarter of 2012 to 5.2 TWh in 2013.

Maf Smith, deputy chief executive at RenewableUK, said the figures confirmed that renewables were steadily becoming more important in meeting the UK's electricity needs, and follows renewables' record share of electricity generation in the previous quarter, when it reached 12.5%.

"The fact that we have seen the record for renewables generation broken twice in the space of a few months shows the progress being made in the race to decarbonise our economy and secure our future electricity supply," he said.

RenewableUK revealed recently that the number of people directly employed in the UK's wind and marine energy sectors has increased by 74% since 2010, and now totals 18,465. The industries also support a further 15,908 indirect jobs, according to the research. RenewableUK forecast that a further 70,000 jobs would be created in the industries over the next 10 years.

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Scotland builds on energy efficiency

New buildings in Scotland are to be more energy efficient when changes to the building standards come into effect in 2015, the Scottish government has announced. The revisions will mean that from October 2015 new homes will emit 21% less carbon than those built in line with the 2010 building standards, while emissions from non-domestic buildings are set to fall 43%.

The announcement follows recommendations by the Sullivan panel, which first reported in 2007 and was reconvened earlier this year to consider its proposals in light of the economic downturn. The original report recommended the staged introduction of stricter energy performance standards in 2010 and 2013, with the aim of achieving net zero carbon by 2016–17. The 2010 standard aimed to reduce carbon emissions from new buildings by a further 30% on the 2007 standards.

Pushing back the introduction of the new standards from 2013 to 2015 will give developers plenty of time to prepare for the changes, said Scotland's planning minister Derek Mackay: "I'm now giving industry the certainty they asked for and importantly, an extra two-year preparatory period, a total of five years without change."

New standards will improve efficiency of homes like these being built in Glasgow

Notification of the changes to Scottish building standards came as a global survey of property companies reveals that Europe is lagging the rest of the world in reducing the amount of energy consumed in buildings.

The 2013 global real estate sustainability benchmark (GRESB), which polled 543 property companies and funds, reports an overall 4.8% reduction in energy consumption from buildings over the 2011-12 reporting period. At the same time, greenhouse-gas (GHG) emissions fell by 2.5%. The reductions were much less in Europe, however, with energy consumption and emissions falling by just 0.7% and 0.2% respectively.

According to the survey, the biggest reductions were in the US, where energy consumption was down 6.6% and emissions fell 4.8%.

The GRESB also found that risk management strategies related to sustainability are widespread in the property sector. It reports that all participants now perform sustainability risk assessments, up from 60% in 2012. Also, the number of companies and funds disclosing information on sustainability performance has increased by nearly one-quarter compared with last year.

EIA Update special

iema

Delivering proportionate EIA

On 11 September, IEMA hosted its third EIA Quality Mark Forum, bringing together environmental impact assessment (EIA) professionals from across the UK to discuss the future of EIA and debate how the process could be delivered more proportionately.

The day was opened by IEMA's practice and policy lead on EIA, Josh Fothergill, who revealed that the quality of non-technical statements from the EIA Quality Mark's 48 participants had improved over the previous 12 months. However, he warned: "EIAs can still be unfocused and complex, with lengthy environmental statements that make it difficult for the public and consenting authorities to access the information they contain."

With plans for new EU legislation on EIA unlikely to take effect for several years, Fothergill laid down the gauntlet to the profession to take action now. "Proportionate EIA is not just about being effective, it's about being efficient. We practitioners can make a difference in improving the proportionality of EIA, we don't have to wait for the new EIA Directive," he said.

Sir Michael Pitt, the chief executive at the Planning Inspectorate, delivered a keynote speech on EIA in nationally significant infrastructure projects (NSIP) and how the standard assessment process could learn from NSIP best practice. His tips included having strong project management in place from the outset, and ensuring early and ongoing engagement with stakeholders.

The second session focused on how competent authorities and statutory bodies can help deliver more proportionate EIA. Cara Davidson, from the Scottish government, introduced the devolved administration's new advice note on EIA, PAN 1/2013 (which replaced PAN 58). She explained how it had been designed to ensure more efficient assessments, by encouraging, for example, better use of strategic environmental assessments. "Proportionate EIA is not just about environmental statements," said Davidson. "PAN 1/2013 looks at how organisations can work together to improve EIA."

There were also presentations by experts from the Planning Inspectorate and the Environment Agency on work to improve assessments. The inspectorate's Frances Russell highlighted the importance of clearly labelling where information sits within an environmental statement, revealing that the body receives a significant proportion of statements without a comprehensive contents page. Meanwhile, the agency's Veronica James discussed how the regulator was working with Natural England and the Forestry Commission to deliver a "single voice" on developments and avoid duplicating efforts or providing contradictory advice.

In breakout sessions the 75 delegates also shared their ideas on creating more proportionate assessments, discussing environmental statements, scoping, iterative design and how to cut out "wasteful actions". These sessions will form the basis for forthcoming guidance notes from IEMA (see p.37).

73% of GHG emissions from 10% of firms

Just 50 companies are responsible for almost three-quarters of the 3.6 billion tonnes of greenhouse gases (GHGs) produced by the world's 500 largest-listed firms, according to new data from the CDP, formerly the Carbon Disclosure Project.

The CDP found that scope 1 and 2 emissions from the 50 firms, which are mainly in the energy, materials and utility sectors, accounted for 73% of total reported emissions from the 403 global 500 companies responding to its 2013 climate change report.

The research also reveals that the total amount of carbon produced by the 50 companies has risen by 1.65% to 2.54 billion tonnes over the past four years, while the five highest emitting firms from each sector monitored by the CDP have increased their emissions by 2.3% on average since 2009.

Over the same period, total scope 1 and 2 emissions from all participating companies has fallen from 4.2 billion tonnes of carbon equivalent in 2009 to 3.6 billion tonnes in 2013.

The findings also highlight that the majority of firms are failing to report emissions from the most relevant parts of their value chains, with levels of disclosure of significant indirect scope 3 emissions relatively low. While nearly all companies (97%) disclose scope 1 and 2 emissions from their operations, less than half (47%) can quantify the most important emissions from their value chains. Just one-quarter of companies report emissions from the "use of sold products" even though product use accounts for 76% of reported scope 3 emissions. By contrast, 72% of companies report emissions from business travel, which accounts for only 0.2% of total reported scope 3 emissions.

The CDP also lists the 97 firms in the global 500 that failed to respond to its request for emissions data. The list contains well-known brands, including Amazon, Apple and Facebook.

Meanwhile, the latest assessment of companies listed on the Dow Jones Sustainability Index (DJSI) reveals the leading sustainability-driven firms

worldwide in 24 industry groups. Just one UK-based company, energy firm BG Group, formerly part of British Gas, makes the list, though firms with a significant presence in the country, such as Nestlé, which employs 8,000 people across 23 sites in the British Isles, are also identified as leaders.

The DJSI's corporate sustainability assessment examines a company's economic, environmental and social practices, including its approach to innovation, supply chain management and climate change adaptation.

From environmentalistonline.com…

5p bag charge

Deputy prime minister Nick Clegg has confirmed that supermarkets in England will be forced to charge their customers for bags. The Welsh government introduced a 5p levy on disposable carrier bags in 2011 and the administration in Northern Ireland did so in April. The 5p charge in England will apply from autumn 2015, one year after the Scottish authorities plan to introduce their own levy. "We've waited too long for action," acknowledged Clegg. The introduction of the charge in Wales resulted in the number of carrier bags given to shoppers by supermarkets falling 76% in 2012 compared with the previous 12 months. At the same time, the number of bags used by shoppers in England increased 4.4% to 7.06 billion. Small businesses will be exempt from issuing the charge, Defra has confirmed, and there are plans for biodegradable bags, which meet specified quality standards, also to be exempt.
environmentalistonline.com/Carriers

Wind support

The committee on climate change (CCC) has urged the government to amend its electricity market reform delivery plan, arguing that unrealistic expectations over the cost reductions for offshore wind generation could hamper deployment. In a letter to the energy secretary, CCC chair Lord Deben praises much of the plan, but warns that proposed strike prices for offshore wind – the amount to be paid per MWh of electricity generated – fall too steeply after 2016/17. The CCC describes initial strike prices of £155 per MWh until 2015/16 as "broadly appropriate", but says plans to cut support to £135/MWh in 2018/19 are based on cost savings from the sector that are "unlikely". The letter also warns that the wide range of scenarios outlined in the plan for electricity generation post-2020 is introducing doubt as to the government's commitment to offshore wind technology when investors require certainty.
environmentalistonline.com/EMRWind

REACH errors

In its second examination of REACH enforcement, the European Chemicals Agency has found that more than two-thirds of "downstream users" inspected were not compliant. Of the 1,181 firms visited by the agency between May 2011 and March 2012, 67% had not met the requirements of the REACH Regulation (EC 1907/2006) or the CLP Regulation (EC 1272/2008) – which covers the classification, labelling and packaging of chemicals. Downstream users are companies that use chemicals to formulate new substances. The most common failings were related to the registration and notification requirements demanded by REACH. The agency reports, for example, that 28% of firms formulating mixtures were unaware of the registration status of the substances they were using. It also found some evidence of inadequate risk management, and that more than half of safety data sheets were deficient.
environmentalistonline.com/REACH2

Recent Prosecutions

CaseLaw

Building in protected areas rests on public sense rule

In *Cherkley Campaign v Mole Valley District Council* [2013] All ER (D) 180, the High Court allowed a judicial review of the local planning authority's decision to grant planning permission for a hotel and spa complex with an 18-hole golf course. The site was within an area of great landscape value and outstanding natural beauty, as well as the Metropolitan Green Belt – the statutory green belt around London.

The local plan required the developer to demonstrate that further golf facilities in the area were "necessary" in the interests of the wider community. The developer attempted to deal with this by suggesting that "need" could be equated with private sector "demand", and claimed there was an appetite for such a facility. This was rejected by Mr Justice Haddon-Cave. He stated that pure private demand was antithetical to public need, particularly very exclusive private demand. He asserted that, on the contrary, the more exclusive the development, the less public need is demonstrated.

It is apparent that the term "need" does not have a general meaning but should be interpreted in the relevant context. For example, in the national planning policy framework, "need" has different meanings in the context of housing development from that in the *Cherkley* case, whereby authorities must consider private sector demand for housing. In *Cherkley,* the local plan stipulated that development in designated areas that resulted in the loss or deterioration of irreplaceable habitat should be refused permission unless "the need for, and benefits of, the development in that location clearly outweigh the loss".

Jen Hawkins

Lexis®PSL

Firms fined for illegal disposal of hazardous waste

Diluting hazardous waste by mixing it with compost for spreading on farm land has led to two companies being fined a total of £9,000. The firms, Land Network and Lincoln Electric UK, will also have to pay costs totalling £30,000.

Lincoln magistrates' court was told that Land Network, which operates a composting site near Gainsborough under both an environmental permit and an exemption from permitting, accepted hazardous waste from Sheffield-based Lincoln Electric UK between June 2009 and February 2010. Lincoln Electric manufactures welding rods and wire, and the waste included drawing soap, which is used as a lubricant in making steel wire, and welding rod waste.

The drawing soap sent to Land Network was found to contain an illegal level of the hazardous ingredient calcium hydroxide, and, although the welding rod waste was not considered hazardous, it was not biodegradable. Mark Harris, prosecuting for the Environment Agency, said: "This case concerns the acceptance of a hazardous waste with the intention of diluting it by mixing with compost for spreading on agricultural land. Composting is not an appropriate method of treating hazardous waste."

The composting business pleaded guilty to three charges, including failing to comply with the conditions of its permit for the Sturgate Airfield site, but in mitigation said it relied on others for advice before accepting the waste. Lincoln Electric pleaded guilty to one offence of failing to prevent Land Network breaching its environmental permit. It too said it relied on others for advice.

Judge John Stobart concluded that both companies had either been misdirected or had misdirected themselves as to the status of the materials. "It was a potent mixture and fairly hazardous on any view," he said.

Land Network was fined a total £8,000 and ordered to pay costs of £17,500. A £1,000 penalty was imposed on Lincoln Electric, plus costs amounting to £12,500.

Councils fail to control business

The failure by Barrow Borough Council and Cumbria County Council to properly investigate claims by a local resident over a six-year period that a nearby business was noisy, smelly and dusty has been condemned by the Local Government Ombudsman (LGO).

The resident contacted the LGO after his complaints about the business, which operates a waste processing facility without planning permission, went unresolved. He alleged that, despite numerous communications with Barrow Borough Council since 2007 when waste activities began, no action was taken against the landowner. In 2010, the council referred the complaints to the county council, which has responsibility for waste and minerals issues. The situation did not improve, however.

Barrow Borough Council has been told by the LGO to offer the resident £4,500 for its failure to refer the matter to the county council for three years, while the county council has been asked to pay £3,000 for the delay caused by its initial failure to carry out an adequate investigation.

Removal firm fined for railway dump

Breaching the Environmental Permitting (England and Wales) Regulations 2010 has cost a removal company and one of its directors more than £19,000.

Martells of Sutton and company director Charles Martell pleaded guilty after an Environment Agency investigation revealed a disused railway cutting was being illegally filled with waste from a construction project at the company's Charlwoods Road site at East Grinstead. Having secured planning permission for a new warehouse and registering two U1 waste exemptions, which allow certain waste to be used in construction, Martells acquired a former railway cutting behind the site. It deposited large quantities of waste soil in the cutting to support the new building in contravention of its U1 waste exemptions. Such exemptions permit the use of suitable waste products in small-scale projects only, and it is not possible to register multiple exemptions to increase the volume of waste used.

Martells was fined £15,000 and ordered to pay costs of £2,315, while Charles Martell was fined £2,000.

New Regulations

In force	Subject	Details
18 Jun 2013	Energy	The Planning Act 2008 (Nationally Significant Infrastructure Projects) (Electric Lines) Order 2013 amends the 2008 Act to provide two new categories of electric line installation that are no longer considered nationally significant infrastructure projects. lexisurl.com/iema15978
18 Jun 2013	Marine environment	Aquaculture and Fisheries (Scotland) Act 2013 amends the 2007 Act, introducing new provisions governing fish farming in Scotland. lexisurl.com/iema15977
19 Jun 2013	Environment protection	European Commission decision 2013/295/EU prolongs the validity of the ecological criteria for the award of the EU ecolabel to certain products by amending the following decisions: 2006/799/EC (soil improvers), 2007/64/EC (growing media), 2009/300/EC (televisions), 2009/543/EC (outdoor paints and varnishes), 2009/544/EC (indoor paints and varnishes), 2009/563/EC (footwear), 2009/564/EC (campsite services), 2009/567/EC (textile products), 2009/568/EC (tissue paper), 2009/578/EC (tourist accommodation), 2009/598/EC (bed mattresses), 2009/607/EC (hard coverings), 2009/894/EC (wooden furniture), 2009/967/EC (textile floor coverings), 2010/18/EC (wooden floor coverings) and 2011/331/EU (light sources). lexisurl.com/iema15985
20 Jun 2013	Environment protection	The Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 transpose EU Directive 2010/75/EU on industrial emissions and replace (mostly from 7 January 2014) a raft of existing legislation. lexisurl.com/iema15666
25 Jun 2013	Built environment	The Town and Country Planning (Development Management Procedure) (England) (Amendment) Order 2013 amends the 2010 Order, with changes to articles 4, 5, 6, 7 and 8. lexisurl.com/iema15663
30 Jun 2013	Built environment	Planning legislation in Scotland has been amended by four new sets of regulations: The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (Scotland) Regulations 2013; The Town and Country Planning (Appeals) (Scotland) Regulations 2013; The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013; and The Town and Country Planning (Control of Advertisements) (Scotland) Amendment Regulations 2013. lexisurl.com/iema15534; lexisurl.com/iema15535; lexisurl.com/iema15536; lexisurl.com/iema15537
1 Jul 2013	Energy	The Feed-in Tariffs (Amendment) Order 2013 amends the 2012 Order. Changes include: new rules where licences are revoked and the removal of net metered export payments from the calculation of the feed-in tariff contribution. lexisurl.com/iema15530
1 Jul 2013	Energy	The Renewables Obligation (Amendment No. 2) Order (Northern Ireland) 2013 amends the 2009 Regulations by altering the amount of electricity generated by a qualifying combined heat and power generating station that is eligible for higher-level support. lexisurl.com/iema15981
1 Jul 2013	Water	The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 amend the 2011 Regulations. Changes include imposing new duties on the Scottish Environment Protection Agency. lexisurl.com/iema15662
8 Jul 2013	Climate change	European Commission Regulation 525/2013 alters the mechanism for monitoring and reporting greenhouse-gas (GHG) emissions and repeals decision 280/2004/EC. Meanwhile, EU council decision 529/2013 details accounting rules on GHG emissions and removals resulting from activities relating to land use, land-use change and forestry, as well as on information concerning actions relating to those activities. lexisurl.com/iema15997; lexisurl.com/iema15998

To find new regulations by jurisdiction visit environmentalistonline.com/search and enter your search criteria

LatestConsultations

22 Oct 2013
Groundwater Directive

The European Commission is consulting on revising annexes I and II to EU Directive 2006/118/EC on the protection of groundwater against pollution and deterioration – a "daughter" directive to the Water Framework Directive (2000/60/EC). Annex I covers groundwater quality standards, while annex II sets threshold values for groundwater pollutants and indicators of pollution. Under article 10 of the Groundwater Directive, the commission must review both annexes every six years and, if appropriate, come forward with legislative proposals.
lexisurl.com/iema16247

1 Nov 2013
Judicial reviews

The justice ministry is seeking views on a package of measures to stem what it claims is the growth in applications for judicial reviews. It says the proposed measures will tackle the "burden" that this growth has placed on stretched public services, while protecting access to justice and the rule of law. Proposals include: reducing the time limits for bringing a judicial review relating to procurement or planning from three months to six weeks; introducing a new fee for an oral renewal hearing; and removing the right to an oral renewal where the case is assessed as totally without merit.
lexisurl.com/iema16531

3 Nov 2013
Reuse standard

Wrap is consulting on a proposed reuse standard. The aim of the generic standard is to enable organisations selling products for reuse, such as electronic components or furniture, to demonstrate that goods have been subject to a quality assured process, thereby building customer confidence and aiding the reuse sector's development. The final standard will be supported by a number of product-specific requirement standards that will detail additional criteria. The consultation is aimed primarily at organisations and businesses undertaking the collection, processing and dispatch of products or components for reuse.
lexisurl.com/iema16529

7 Nov 2013
Offsetting for biodiversity

Defra is consulting on options for its proposed biodiversity offsetting system. The environment department says the aim is to maintain ecosystems, air, water and soils, because they underpin sustainable economic growth in the long-term, but also ensure "expensive and inefficient planning processes" do not unnecessarily delay or block the housing and infrastructure the economy needs to grow. Defra says biodiversity offsetting is a measurable way to make good residual damage to nature caused by development that cannot be avoided or mitigated.
lexisurl.com/iema16530

30 Nov 2013
Energy labelling

As part of its review of the Energy Labelling Directive (2010/30/EU), which is due to be completed by 31 December 2014, the European Commission is seeking views on the strengths and weaknesses of its implementation. The consultation will also contribute additional information to the required review of the Ecodesign Directive (2009/125/EC). The commission says the results of the consultation will be used to contribute to a comprehensive and complete analysis of the performance of both directives and how they can be improved in future.
lexisurl.com/iema16533

New Guidance

Valuing energy use and GHG emissions	Supplementary guidance to the Treasury's Green Book has been published by Decc advising on how analysts should quantify and value energy use and greenhouse-gas (GHG) emissions (lexisurl.com/iema16537). The energy and climate change department says the guidance will be useful for those undertaking options appraisals for policies, programmes and projects; building business cases; and conducting impact assessments. It can also be used to inform the evaluation of policies. The guidance covers proposals that have a direct impact on energy use and supply, as well as those with an indirect impact through planning, construction, land-use change or the introduction of new products that use energy.
Hazardous waste	UK environment regulators have jointly published the third edition of their guidance on interpreting the definition and classification of hazardous waste (technical guidance WM2, lexisurl.com/iema16541). It is aimed at those involved in the production, management and regulation of hazardous waste. It includes appendices on: the consolidated list of waste; data sources; hazardous property assessment; and waste sampling. The agencies describe the document as a comprehensive reference manual, and warn that competence in hazardous waste, and some chemistry knowledge, is needed to make full use of all its aspects.
UK GHG inventory	A companion guide to the UK National Inventory (UKNI) Report has been published by Decc and is described as a simple introduction to the origins and use of data used to compile the UKNI (lexisurl.com/iema16538). In addition to providing details of what the UKNI is and how emissions are calculated, the guide examines emissions data and trends, outlines uncertainties around the data and provides details of how the data are verified. Decc says the guide is deliberately short and is not intended to cover all technical and reporting aspects in full detail. However, there are links to resources and publications with more detail on the UKNI.

Laying down the law

SEA going off the rails?

Stephen Tromans on the HS2 case that split Court of Appeal judges, and why the minority decision sends the right signal

Whether HS2, the high-speed rail link between London and the North, is built is more likely to be decided on financial and political factors, rather than environmental ones. However, it is causing the courts to address some important legal issues, most recently the Court of Appeal decision in *HS2 Alliance Ltd Buckinghamshire County Council and Heathrow Hub Ltd v Secretary of state for transport* [2013] EWCA Civ 920.

The case is notable for a striking divergence of judicial opinion. It focuses on the document *High-speed rail: investing in Britain's future – decisions and next steps* (DNS), which was published by the transport department (DfT) in January 2012. There were a number of grounds of challenge, but of particular importance for this column was the argument that the decisions in the DNS fell within the scope of the Directive on strategic environmental assessment (SEA) (2001/42/EC).

Following publication of the DNS, a proposed route was published and a paving bill (the High Speed Rail (Preparations) Bill) introduced in the House of Commons. A draft environmental statement (ES) on phase I of the project, from London to Birmingham, was also produced and included a section on the "strategic and route-wide alternatives" considered.

The objectors argued that the DNS was a plan or programme "required by...administrative provisions" and "set the framework for future development consents" – therefore subject to the SEA Directive. Mr Justice Ouseley had earlier decided at the High Court ([2013] EWHC 481) that the DNS was not such a plan or programme because it would not have a sufficiently strong effect on parliament (the "decision maker"), which would decide ultimately whether to give development consent for the project.

The issue split the Court of Appeal, however. The majority (the Master of the Rolls and Lord Justice Richards) analysed the case law at EU level and concluded that either the plan or programme would need to have some legal influence on the later decision (by narrowing the discretion that the decision maker would otherwise enjoy) or there would have to be cogent evidence that the decision maker would in fact follow the recommendations it contained. In this case, the DNS would have no legal influence on parliament's decision and the court should not seek to second guess what parliament would do.

On that basis, the DNS did not "set the framework" for future consent and was not within the SEA Directive. That made it unnecessary to rule on the further question of whether it was "required by... administrative conditions".

The minority judgment, given by Lord Justice Sullivan, robustly contradicts the majority reasoning. Of particular importance to Sullivan was the anomaly that would result from a situation where HS2 was consented through a non-parliamentary process, such as under the Planning Act 2008. In such circumstances, the DNS would have been subject to SEA requirements. The result of the government's argument is that member states could avoid the requirements of SEA by choosing a legislative process to make the decision. In such circumstances, the benefit of SEA – having to identify, describe and evaluate reasonable alternatives – would be lost. This would be contrary to the interpretation of the Directive in European case law.

As Sullivan pointedly commented, the government was not able to identify any current UK project that was likely to have a more significant effect on the environment. His analysis of the European cases does not suggest that a plan or programme must have a strictly legal influence on the later decision-making process to be within the SEA Directive. Sullivan believed there was compelling evidence that the DNS would influence parliament's decision on HS2. In particular, he was of the view that the convention of collective ministerial responsibility was relevant – that convention would have a very significant influence on parliament's decision-making process on the future HS2 Bill.

This is a hugely important decision in terms of the effectiveness of the SEA regime. The powerful – and in my view more cogent – dissent of Lord Justice Sullivan makes it likely that the case will go further, to the Supreme Court, and most likely to the European Court.

The SEA regime requires that alternatives be addressed at an early stage in the decision-making process – while they are genuinely an option. Individual MPs may, because of the project's effect on their constituencies, decide to vote against HS2, and the political wind may shift against the project. But none of that is really any excuse for not subjecting the DNS document to the proper SEA process.

SEA Directive

The SEA Directive (2001/42/EC) came into force in 2001 and was transposed into domestic legislation by the Environmental Assessment of Plans and Programmes Regulations 2004. An SEA is mandatory for plans or programmes that:

- are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste/water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent of projects listed in the EIA Directive; or
- have been determined to require an assessment under the Habitats Directive (92/43/EEC).

For the plans or programmes not included above, member states have to carry out a screening procedure to determine whether they are likely to have significant environmental effects. If there are, an SEA is needed.

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Collaring emissions

the environmentalist discovers how the Metropolitan Police tackled sustainability issues during London 2012

Policing the London 2012 Olympic and Paralympic games presented the Metropolitan Police Service (MPS) with an operational – and environmental – challenge on a scale that it had never before experienced. During the games more than 10,500 police officers were deployed on peak days; 644,000 litres of fuel were consumed by the MPS fleet; 440 tonnes of CO_2 were produced from temporary MPS buildings; 2,265 litres of water were used; and 262 tonnes of waste were generated – though no waste was sent to landfill.

Conscious of the aim for London 2012 to be "the most sustainable games ever", the MPS developed a sustainability programme for its policing operations. That programme continues to be used today and aims to improve the environmental impacts from the policing of major events in future.

On a grand scale

With the MPS being the largest employer in London, comprising 50,000 people across 32 boroughs, successfully managing the sustainability impacts of policing the games was no mean feat. The service's environment team, led by head of carbon management Neil Grange, acted as a coordinating hub to ensure that impacts were considered and mitigated wherever possible. "The sheer scale of the event was a challenge, exacerbated by the fact that, at the early stages, there wasn't much information about what precisely the project would entail," says Grange.

"With a small team of environment professionals, it was a priority to engage people across the organisation, and ensure that all parties understood that sustainability requirements needed to be incorporated at every stage of planning and delivery of our policing operations."

With this goal in mind, the team gave numerous presentations to senior managers, subcontractors, suppliers and working groups to gain the necessary buy-in to support the Met's sustainability agenda.

The environment team also dealt with a host of challenges specific to developing a sustainable event management system for the games. "Before the event there were environmental issues to consider around the site selection of our temporary policing centres, as well as in contracts and the procurement process," recalls Sarah Foster, recycling officer. "During the event, the main issues focused on ensuring that accurate monitoring was completed regularly and that police staff understood what was expected of them at the temporary sites – for example, in relation to waste segregation and the use of equipment and appliances."

3 To reduce fleet use during the Olympic and Paralympic games, officers were deployed locally where practical – either by walking or by using public transport to reach locations. Also, coaches were used to transport officers to the three temporary centres, resulting in a reduction in carbon emissions generated per officer. Overall, the Metropolitan Police Service road fleet consumed 298,838 litres of fuel over the games, producing a total of 808.99 tonnes of carbon.

4 A total of 10,500 police officers were deployed at peak times during London 2012, with up to 4,000 based at the Wanstead centre each day. To cut down on the amount of waste plastic generated, each police officer was issued with refillable water bottle.

Three temporary muster, briefing and deployment centres were built by the Met for its operations during the games. This site built at Wanstead Flats was the largest.

1 Photovoltaic panels were installed at each of the three muster, briefing and deployment centres to help charge the batteries powering the external lighting.

2 Composite flooring was used for the stables built for the Met's mounted branch to prevent residue from horse waste entering the ground and contaminating watercourses.

5 The Wanstead site used more than 94,000 litres of fuel during the games – generating the equivalent of 266 tonnes of carbon.

6 Organisations supplying the centres had to achieve a 50% recycling rate and a minimum recovery rate of 60% for all their waste.

The London 2012 organising committee (Locog) had a vision of the Olympic and Paralympic games that would leave a sustainable legacy for London and the UK, and early on defined five key areas of focus: climate change, waste, biodiversity, inclusion and healthy living. The Met approached these five core elements through the filter of its corporate social responsibility strategy and by adopting the framework set out in BS 8901, the British sustainability standard created for the events industry to coincide with the games.

Grange says the Met already had a robust environment management system in place and the adoption of 8901 served more to highlight any sustainability gaps that could have arisen from the planning and delivery of a large-scale event. His team also used an environment implications matrix tool to assess the impacts of every project concerned with policing the games. The matrix, which the MPS continues to apply, was used to detail any impacts arising from event-related activities and the steps to be taken to mitigate, where possible, any negative effects. The areas assessed in the matrix relate to:

- energy use and associated CO_2 emissions;
- water consumption;
- waste generation and disposal;
- travel and transport, and associated emissions; and
- consumption of raw materials.

Between June 2010 and March 2011, the team assessed 86 business cases for projects related to the Met's policing operations for the games in relation to their environment aspects and impacts. These business cases varied widely in terms of their scale and implications for sustainability, but projects with the greatest significance for the environment tended to focus on:

- fuel consumption and CO_2 emissions from transport;
- energy use (electricity, gas and fuel oil) and associated CO_2 from buildings and temporary facilities funded by the MPS;
- water consumption;
- waste generated by Met employees and managed directly by its contracted suppliers; and
- impacts on local wildlife, biodiversity and communities.

Centre of operations

As part of its policing of the games, the MPS built three temporary muster, briefing and deployment centres (MBDCs) at Wanstead Flats (pictured), Blackheath Army Cadet Centre and Battersea Power Station. They provided briefing and feeding for up to 4,000 officers a day, and acted as a base to issue operational equipment. The design, construction and operation of the centres all required the input of the environment. It worked closely with the MBDC project managers to ensure that sustainability issues were considered at

all stages, from planning and procurement through to construction and operation during the games. The team was able to rely on the Met's sustainable project design guide to ensure the most environmentally friendly options were selected. The centres were fitted with LED lighting, percussion taps in bathrooms and waterless urinals, for example.

Many of the sustainable solutions used were unique, owing to the temporary nature of the sites and their specific requirements. Light pollution, for example, was identified as a possible concern at the centres due to its potential impact on biodiversity and the local community. "With this in mind, we investigated options for sensitive lighting during the planning stage for the centres, including fencing that would not only provide perimeter security but would keep light pollution to a minimum," says Grange. External car park lighting posts were erected and powered with large batteries charged via generators and onsite photovoltaic cells.

Emergency procedures were established during the design phase to ensure that any spillages from oil or other pollutants could be cleaned up quickly and efficiently. Spill kits were installed at all three MBDCs during the construction phase.

Consuming resources

Energy and water consumption, as well as waste generation, were measured at each MBDC. Wanstead was the largest of the three sites and used more than 94,000 litres of fuel during the games – generating the equivalent of 266 tonnes of CO_2.

Transport contracts ensured that vehicle movements were kept to a minimum and suppliers were encouraged to sign up to the freight operator recognition scheme, created by Transport for London to improve the environmental performance of freight movements in the city. Deliveries to sites were carefully planned to minimise the number of journeys required.

Waste management, meanwhile, was tackled through specific strategies at each centre. "Our aim was to ensure that as much waste as possible was recycled or recovered to support Locog's vision of a zero-waste games," says Foster. As far back as 2009, the team started to work on waste reduction measures for the games and, in 2011, it produced venue and resource management guidance, which required suppliers to achieve a 50% recycling rate and a minimum recovery rate of 60% for all waste.

One issue was how to deal with the waste generated by the 200 dogs and 60 horses based at the MBDCs. A composite flooring was used for the 35 stables built for the mounted branch of the MPS to prevent any residue from horse waste entering the ground and contaminating watercourses. Horse waste was carefully segregated in sealed containers. It was eventually used as manure in the London Borough of Newham's parks.

Catering for 4,000 police officers daily at the Wanstead MBDC represented its own waste management challenges. When the MBDCs were up and running, the environment team trained about 400 catering and cleaning staff on the efficient use of water and energy, as well as segregation methods for different waste streams. Posters with clear waste segregation instructions were placed close to the recycling bins. The catering teams were able to "close the loop" for one waste stream, with 18,000 litres of cooking oil collected and converted to biodiesel for use by catering suppliers.

More than 220,000 meals were served at the centres during the games. To reduce the impact of the associated waste, disposable bowls and plates were made from a compostable paper-based material certified to the EU packaging standard EN 13432 and police officers were issued with refillable water bottles to cut plastic waste. Compostable packaging and food waste were collected and sent to an anaerobic digestion facility in south-west London. In total, 259 tonnes of waste were generated at the three centres – 100% was recovered, 78% was recycled and no waste was sent to landfill.

Dealing with biodiversity

Protecting the biodiversity at the MBDC sites was also a priority for the environment team. Of the three centres, only the Wanstead MBDC posed difficulties as it was located on a site of importance for nature conservation and next to a site of special scientific interest. Specific planning requirements relating to environment management included an initial survey to identify species and habitats, and to determine the potential impacts of policing operations.

The Wanstead site contained no protected species, but records from the area indicated historical sightings of several species, including protected bats. It was also close to habitats of high wildlife value, which, in the absence of appropriate safeguards, could have been impacted by the MBDC.

As result, a trench housing a temporary utility supply to the site was carefully directed to avoid disturbing ant nests. The initial layout of the centre was also redesigned to ensure that no temporary structures would be erected near to any tree roots.

The City of London took grass cuttings 12 months in advance of the construction of the Wanstead centre so that it could re-grass the area if required. One of the many habitat surveys there later identified the piles of grass cuttings as suitable egg-laying sites for native snakes and they were moved offsite to avoid interfering with the species' nesting and egg-laying periods.

Measures to maintain the ecological value of the sites were implemented by the environment team during the construction phase. These included the use of robust protective fencing and clear signage to ensure that vehicles remained entirely within the site boundaries.

Grange believes the Met's wide-ranging efforts are now starting to help realise Locog's vision of a sustainable legacy following the London 2012 games. "Our approach continues to affect areas from event planning to what sort of packaging is used for officers' snack packs," he says.

"Some procedures, such as the strategic planning framework for sustainable events that assesses the likelihood of impacts from event-related activities, have become embedded in the Met's approach to large-scale events, particularly for waste management and procurement practices. We now aim for all our events to be zero-waste to landfill and so far, so good."

18,000

litres of waste cooking oil from catering at the temporary police centres were converted to biodiesel for use by suppliers

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Directing current

Julian Jackson asks if the European supergrid is the key to decarbonising electricity generation across the bloc?

The supergrid is an ambitious programme to link national electricity grids across Europe in support of the EU's target to reduce carbon emissions by 20% on 1990 levels by 2020, rising to an 80–95% cut by 2050. The idea is that the variability of renewable energy would be compensated for by having a pan-European grid; so Norwegian hydropower could cook pasta in Naples and Spanish sunshine might boil tea in Edinburgh.

The supergrid would enable the exchange of electricity across borders, and allow a much higher level of integration of renewable technologies into the grid, provide energy security, emissions reduction, skilled jobs and the potential for exporting technology.

Liberal Democrat MEP Graham Watson, who chairs the Climate Parliament – a global network of politicians concerned with environmental issues, says: "The supergrid is the most cost-effective way to meet our power sector decarbonisation targets, which are unbreakable if we want to do our bit to safeguard the planet's climate. Long-distance grid connections are the catalyst that will unleash the development of renewables and the switch to a green economy."

Taking a lead

The wind resource around the British Isles is the best in Europe and the UK and Ireland are working at the forefront of this ambitious project. Alongside seven other countries, the UK and Ireland have signed up to the North Seas Countries' Offshore Grid Initiative to work together to develop offshore wind generation and the accompanying grid infrastructure. Ireland and Scotland have agreements to share power and it is likely that Ireland will have surplus energy to export if it develops its wind power sector effectively.

The technology underlying the project is well understood and mature. High-voltage direct current cables (HVDC) have much lower energy losses over long distances than conventional alternating current (AC) cables. Siemens calculates that DC transmission loss is 30%–50% less than AC at a similar power and voltage.

National grids could be joined together using overland or undersea HVDC cables called interconnectors via "supernodes". This would mean that the grid connections would be transnational and power could be shunted most efficiently to whichever country needed it. Building new national grids, on the other hand, would mean duplication, wasted resources and, potentially, more carbon emissions. For example, using a DC interconnector to take power from mainland Spain to Mallorca, instead of a building new oil-fired power plant on the island, has saved 1.2 million tonnes of CO_2 each year.

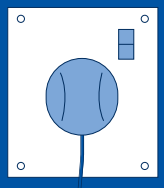
The EU is already experiencing the so-called "energy island" problem, where more renewable energy is generated than can be transmitted over national grids and new connections are needed to allow this power to be used. The UK government has been in talks with Iceland about building the world's longest interconnector between the two countries to enable Icelandic geothermal power to be imported to the UK.

However, an interconnect with Norway is more likely and would enable the UK to take advantage of an international-scale "pumped storage" power system. Excess electricity generated in the UK would be used to pump water into reservoirs in Norway, where it would remain ready to run turbines and return the power when it was needed. The final technical hurdle to the scheme was surmounted last year, when technology firms Siemens and ABB both announced they had developed prototype DC breakers – which shut off power to enable maintenance or replacement. AC cables can be easily shut down for such work, but it is more of a challenge with a DC cable, especially if it is deep under water.

Driving force

Behind the supergrid concept is Eddie O'Connor, the chief executive and founder of Ireland's leading green energy company, Mainstream Renewable Power. O'Connor is bullish about the prospects of Europe becoming energy independent and making the transition to renewable power. "All Europe's electricity will be decarbonised by 2050," he predicts. "There are 12,000 gigatonnes of carbon in the Earth's surface and we can only use 230 gigatonnes without destroying the planet's atmosphere. The supergrid is absolutely central to Europe's decarbonisation agenda."

While the environmental credentials of the supergrid project may be clear, the costs are going to be significant. In a report last year, the parliamentary committee on climate change estimated the UK's share of construction costs in the North Sea at £15–£20 billion over the next 10 years. In evidence to the committee,



O'Connor confirmed the project might cost €200 billion. However, these costs should be set against the damage caused by further carbon emissions and continuously rising fossil fuel prices, which will hit businesses and consumers hard. The EU has just guaranteed €2.5 billion to provide seed funding for the supergrid through its "connecting Europe facility", a programme due to launch in 2014 to improve transport, energy and telecommunication links.

Watson hails the EU's allocation of funds as "a victory" for the world's climate, as well as for the project itself. "€2.5 billion of our well-earned taxpayer money will now be guaranteed for electricity links instead of being made available to subsidise gas pipelines and accelerate climate change," he says.

Europe is the leader in this technology. The supergrid, and its associated facilities and administration, will provide jobs in construction, development, maintenance and operation. In addition, the EU's expertise and locally-developed products can be exported to other regions looking at building their own supergrids, such as North America and the Far East.

Possible barriers

The largest obstacle to the successful development and deployment of the supergrid is the tangle of legislative, policy and cultural differences across the patchwork of EU and neighbouring nations. Business associations, industries, local, national and EU government bodies all have their say. Scientists and technologists at the Supergrid 2013 conference held in Brussels in March bemoaned the glacial pace of progress in sorting out agreements to implement the technically straightforward task of connecting national grids.

Theoretically there should be a harmonised EU single market in electricity in 2014. Whether this will happen in reality remains uncertain, however.

Marlene Holzner, EU energy spokesperson, confirms that the permitting arrangements for electricity infrastructure developments can take up to 10 years to agree. This should be reduced to three and a half years during the 2014-2020 EU programming period, says Holzner, but the slow pace of electricity market reform remains the basis for much of the sector's frustration.

It is easy, however, to understand the concerns of politicians and public servants. Electricity, perhaps even more than oil, is the life-blood of industrial states and to rely on power being delivered by a different, possibly non-EU country thousands of miles away is a relatively new concept. If the lights went out in Birmingham, would people accept that it was due to the failure of a supernode in Portugal?

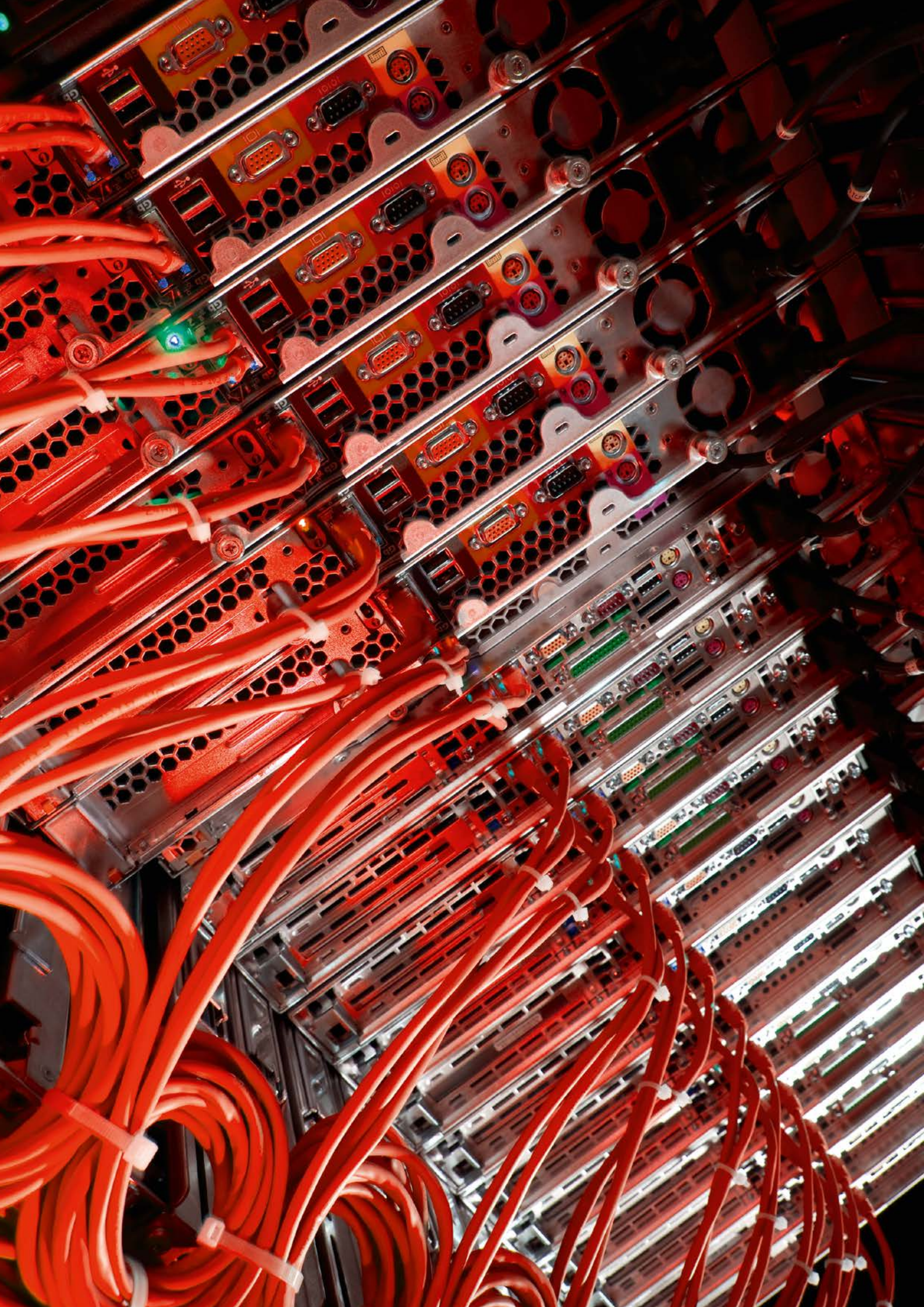
The level of decarbonisation required under EU commitments is unlikely to be achieved without a substantial transition to renewable energy and, therefore, requires the creation of a supergrid. Proceeding piecemeal will only increase costs and divert development funds across a range of options. The proponents of the EU supergrid want a single, overarching framework to ensure that investment, both public and private, can be used appropriately. It would be an absurd situation, for example, for wind turbines in the Irish Sea to be shut down because their power cannot be exported to another part of Europe, while elsewhere polluting coal-fired power stations are built to prevent energy shortages.

With the greater uptake of electric vehicles, a green power supply could decarbonise the area's transport too, according to Watson. "The supergrid is absolutely key to Europe achieving an 80%–95% reduction in greenhouse-gas emissions by 2050," he argues. "The cross-border HVDC grid connections that are already in the pipeline will help us to reach our 2020 targets too.

"Historically we were able to build our power stations near to electricity demand, but from now on our power stations will be windy coastlines and sunny deserts, and we need transmission lines to get that power to market."

The supergrid is possibly the largest civil engineering project ever undertaken and will play a key role in decarbonising a major part of the energy system. However, the obstacles to ensuring it is completed in time to help the EU meet its carbon targets are not technical, but the friction generated by the complexity of the arrangements on paper.

Julian Jackson is a writer about the environment. julianjackson.co.uk, brightgreenpr.co.uk.
For more information on the supergrid visit: friendsofthesupergrid.eu or mainstreamrp.com.



Carbon accounting software can help ensure the quality of emissions data

Under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, quoted firms in the UK must include in their directors' report the amount of greenhouse-gas (GHG) emissions their activities produced that year. The introduction of mandatory GHG reporting is a good time for businesses, whether or not they are directly affected by the legislation, to revisit how best to gather their emissions data.

Over the next few pages, *the environmentalist* examines the carbon accounting software solutions available from several of the leading providers, including reviews by IEMA members, and outlines how to select the right software for your organisation.

Driving change

While the UK legislation will not directly affect more than the 1,100 firms listed on main market of the London Stock Exchange, it is likely to require many more companies to improve the quality of their data. Groom Energy reported earlier this year that company requests for suppliers' carbon emissions data increased significantly in 2011–12, and represent the most important new pressure point for emissions disclosure. Software can help to ensure those numbers are robust.

"We have clients that are keen to enhance the quality of their GHG data," says Alistair Blackmore, sustainability consultant at software company CRedit360.

Effective carbon accounting software can easily illustrate performance by country, site, business unit or process. As a result, organisations can quickly pinpoint where to focus their efforts to improve carbon and energy management. "Companies are no longer gathering and reporting GHG information for solely reputational reasons; it's about driving operational efficiency," says Blackmore.

Gary Davis, operations director at software vendor Ecometrica, agrees: "A lot of companies now believe that accurately measuring environmental impacts will help build better businesses. They've seen the leaders cut costs and want to follow the same model."

Spreading the word

Spreadsheets have been the default option when it comes to gathering and reporting GHG data, but they have their limitations, particularly in complex organisations. Multiple data points can soon overload even the best spreadsheet systems and there is plenty of scope for version control errors. A best practice guide on implementing carbon software from the Carbon Disclosure Project (CDP), which was published in 2012, highlights some of the problems. "As carbon reporting matures, spreadsheets are growing increasingly complex and becoming cumbersome, prone to error and an increasing burden on resources," it states. The CDP cites IT and management consultancy Capgemini as an example of when spreadsheets are no longer viable. It reports that the UK team at Capgemini managed a 4GB spreadsheet, with more than three million new data points being processed each year from 30 sources.

Jamie Devlin, head of client services at Greenstone, a provider of GHG software, also highlights the practical limitations of spreadsheets. "A client came to us because they genuinely could not add another column to their spreadsheet," he says. Meanwhile, Blackmore says that the tipping point for moving from spreadsheets to software is often reached when organisations start to make their GHG data publicly available. "As soon as you start publishing data, spreadsheets are not good enough. They are not auditable," he explains.

Vincent Reulet, key account manager at sustainability consultants and software company Best Foot Forward, says that when more than three or four people are working on a spreadsheet it becomes hard to manage. "You can lose data if the file is saved locally," he warns. "And spreadsheets can easily hide errors." Devlin agrees: "There are examples of firms uploading historic data to software systems and getting a different result. It could potentially mean that the GHG figures over a number of years are simply wrong."

Spreadsheets and free tools for tracking and calculating carbon still have their place, at least for now, particularly in situations where a select number of people are collecting data from a handful of sites. However, if you want to go further than measuring and reporting CO_2 emissions, and start to cut carbon and reduce costs, software is probably necessary.

The benefits of switching from spreadsheets to software are numerous. Automated real-time or batch feeds with data validation, field mapping and error reporting can reduce the cost of capturing the data, for example. Built-in version control tools can provide good audit trails, showing when data was modified, while documentation, such as energy invoices, can be uploaded to the system, simplifying the verification process. Ultimately, software can improve the accuracy of GHG reporting, bringing it more into line with financial accounting systems; with integrated reports more likely in future, this will help to make all businesses more transparent.

Five GHG accounting software solutions are put through their paces by IEMA members

To test the carbon accounting solutions offered by some of the leading software vendors, *the environmentalist* invited five companies – Best Foot Forward, CRedit360, Ecometrica, Greenstone and PE International – to showcase their products before a small group of IEMA members. The vendors were asked to demonstrate the capabilities of their software using data and a client scenario developed specifically for the review, and IEMA members have provided their feedback on each.

Testing capability

For the review, we created Demo plc, a global ICT company with 20 locations across 10 countries, including the UK, Australia, China and the US. Demo collected varying amounts of business data at each location between September 2010 and August 2012, using mainly spreadsheets, and the company now requires a software solution to move the process online. Vendors were asked to upload the data for all countries and indicators, configuring their solution in line with Demo's organisational structure. They were then required to provide: a profile of overall greenhouse-gas (GHG) emissions across different levels of the business and over different time periods; a profile of resource consumption, for example, kWh of electricity; and an intensity ratio for both the consumption and GHG emissions totals using annual global employee figures.

The providers also had to generate reports for Demo that complied with several mandatory and voluntary reporting schemes, such as: UK mandatory GHG reporting; UK carbon reduction commitment energy efficiency scheme; the Bilan Carbon report in France; and the Carbon Disclosure Project (CDP).

Our reviewers (see p.23) gave their verdicts on the five offerings, commenting on what they perceived as the strengths and weaknesses of each solution.

Strengths

The review panel describes Footprint Reporter from Best Foot Forward (BFF) as a "good entry level software solution". "It will do what most companies need when they are starting out in carbon management," says John Buckley. Both Kimberley Greed and Clare Topping agree that its simplicity is a key strength of the BFF solution.

"Comprehensive" and "customisable" are words used by the reviewers to describe the carbon accounting solution from CRedit360. "For a company seeking an integrated approach with the potential for expansion into other areas, this is certainly a more suitable system than some of the other solutions," says Greed.

Topping comments: "The best feature of the software is the variety of ways to present reports. The degree to which reports and dashboards can be customised will be of interest to organisations with a range of different stakeholders. This is for organisations requiring good quality, robust emissions reporting."

Buckley highlights the level of assurance provided by the Our Impacts solution offered by Ecometrica. "The vendor's experts provide quality assurance for the inputs and the audit-ready output is verified by PwC," he says. "Other nice features include comparison of year-to-date results on a year-by-year basis, so you can see how well the company is performing compared with the same period last year."

Greed says Ecometrica's software demonstrated an impressive balance between functionality and simplicity. The best features, according to Topping, are the questionnaire-style data entry point, which makes it easy to upload data, and the simple layout.

Greenstone has just revamped its carbon accounting software and its new "tiles" layout takes its design cues from Windows 8. "It's easy to use and has good functionality," says Buckley. Topping says: "For those looking for a comprehensive piece of software with all the essential functions and a simple, smart user interface – this is it. The ability to use the software on a tablet is probably the standout feature, which means the layout is uncluttered." Greed agrees: "For busy people who are constantly on the move or who are entering data while onsite, the ability to do so on smartphones and tablets makes life a lot easier. Greenstone's solution has some really unique and useful properties that set it apart from anything else we saw."

Topping, meanwhile, found the "drag and drop" feature of the PE International software, called SoFi, particularly useful. "This is the outstanding aspect, enabling users to easily configure reports and customise dashboards." Greed focuses on the solution's ability to integrate with building management systems and meters. "Overall, this is an impressive solution," she concludes.

...and weaknesses

Price will be a major consideration for organisations seeking to purchase carbon accounting software. The average price of an Ecometrica solution for a large company ranges from £20,000 to £30,000 a year, depending on its size and global footprint. The price for smaller organisations is fixed at £12,000.

Meet the reviewers

John Buckley is managing director of consultancy Carbon Footprint, a corporate IEMA member

Kimberley Greed, AIEMA, is an environment consultant at consultancy Workplace Law

Clare Topping, AIEMA, is the energy and sustainability manager at Northampton General Hospital NHS Trust

Greenstone confirms an annual cost of £20,000 to £30,000 for a company similar to Demo plc, while the annual licence fee for the base system from CRedit360 (for up to 50 users) costs £30,000. The PE International pricing model for its base solution (for 20 to 30 users) is split between an annual fee of £8,400 and a one-off implementation cost of around £12,500.

There is concern among the panel that the price of some of the products will be prohibitive for some firms. In that respect, Footprint Reporter from BFF scores highly, with the basic package costing £5,000–£12,500 a year depending on the number of users and conversion factors installed; the relative low ongoing price of PE International's SoFi software also attracts praise.

Other factors, however, are important. The reviewers believe that because Footprint Reporter is targeted mainly at small and medium-sized enterprises, it is less sophisticated compared to some of the other solutions.

Buckley considers the CRedit360 solution more complex to use, warning that it may take more investment in staff training to set up. Topping, meanwhile, comments that the GHG reporting capabilities of the software from PE International does not appear as rigorous as some of its competitors' products – though of the five products reviewed, only PE's and CRedit360's receive a gold standard from the CDP.

The solution from Ecometrica is based on financial reporting models, which could be a potential drawback, according to the panel, as it might not appeal to all sustainability professionals, even though it should ease the process of including GHG data in companies' annual reports and accounts. Similarly, the Windows 8 design of the Greenstone solution may not be universally embraced, given that users' reactions to the new Microsoft operating system have been mixed, with many opting to stick with the previous version, Windows 7.

Best Foot Forward

Best Foot Forward (BFF) has been developing environment software since 1997 and supports clients to "future-proof" their businesses and brands. BFF has helped Tesco to footprint its entire supply chain, for example. BFF's carbon reporting software, Footprint Reporter, has more than 3,000 users and is designed to make it easy to effectively report GHG emissions, including for mandatory carbon reporting and the voluntary CDP. It has a simple, user-friendly interface, which makes it ideal for first time reporters. At the same time, it offers limitless options for integration and customisation. BFF also partners with the Carbon Neutral Company to makes it easy for clients to offset their emissions.

footprintreporter.com/+44 (0)1865 250 818

The verdict: Simple to use and relatively straightforward to set up it could be easily used by any personnel after a simple demonstration and trial session. It produces standard reports for carbon reporting and supports customisable dashboards. Different user privileges can be set up depending on customer requirements. It is aimed mainly at small and medium-sized enterprises, which is reflected in the price. The software breaks down datasets and avoids using technical language – such as "scope 1, 2 or 3". It does not, however, support the uploading of attachments, such as energy invoices, and lacks the ability to identify input errors – one of the major benefits of carbon software. It also lacks the comprehensive audit trail expected from GHG reporting software.

Reviewers' comments: "A step up from a spreadsheet and appropriate for those who will upload data once a year and require minimal reporting."

"It is relatively straightforward to use. The system is presented in a clear format and navigation seems very simple, with things being where you would expect them to be."

"The software offers the basics, allowing data to be input and calculated using an emission factor."

Greenstone

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CRedit360

CRedit360 has 10 years' experience of meeting sustainability challenges. Its sustainability performance management system has 120 clients and 68,000 users across the world. CRedit360 is CDP accredited and GRI certified. Its system is a managed, web-based data management solution, meaning that CRedit360 hosts and maintains the software, and clients access it via a web browser. CRedit360 offers a modular system covering all sustainability issues, including energy and carbon, corporate social responsibility, environment, health and safety, compliance and supply chain management. Clients can expand the system over the long term to have a single integrated sustainability platform.
credit360.com/+44 (0)1223 237 200

The verdict: This system is targeted at large corporations and for full sustainability reporting, as well as GHG reporting. It has all the necessary functions, including a tolerance function that highlights anomalies or incorrect data, and property management systems can be uploaded to the program. Attachments can be imported, and data and calculations are exportable. Conversion factors are regularly maintained. The software lends itself well to data analysis and provides a variety of comprehensive graphics. It also contains modules on supply chain, health and safety and compliance, so it's good for companies wanting to expand reporting to other areas of sustainability. Initial setup appears complicated; however, implementation costs include training.

Reviewers' comments: "This system caters for companies looking to comprehensively report on sustainability – and for those with dedicated personnel to make full use of the software."

"Looks complex to use, but it would still be a good contender and may be a better fit for some firms, especially with the additional modules available."

"For a company seeking an integrated approach to reporting, this is certainly a more suitable system than some others."

Ecometrica

Ecometrica aims to help businesses meet their sustainability challenges, reduce costs and increase overall performance. Its Our Impacts platform is the most widely used sustainability management software service in the world, with more than 250 clients. It supports organisations in measuring their environmental impacts, from carbon, energy, paper, waste and water management through to full supply chain accounting. Accredited by the CDP, Our Impacts is the only sustainability management software that has independently assured (by PwC) audit-ready outputs, eliminating clients' pre-audit costs and potentially returning on investment within a year.
ecometrica.com/+44 (0)207 268 3033

The verdict: Our Impacts is simple to use and has a high level functionality. It is ideal for multisite organisations requiring robust, fully auditable reporting of its emissions. The solution's central tenet is audit readiness, so it scores very highly on quality assurance. It prevents users proceeding to the next stage if it detects an error – flagging where data is missing or duplicated – and Ecometrica experts then verify all data. Data can be uploaded automatically from half-hourly meters or spreadsheets, for example, and attachments can be uploaded, providing a good audit trail. There are also lots of help screens available to aid users. The program mirrors financial reporting tools, so it may not appeal to sustainability professionals unfamiliar with such frameworks.

Reviewers' comments: "Overall, I like the way this software is laid out, and I think the focus on quality assurance is what I look for in any type of data software."

"Ecometrica takes care of a lot of setup and ensures the robustness of the process and reports. It feels like a complete package."

"This software is ideal for companies with multiple sites who require robust, comprehensive, fully auditable reports."

Greenstone

Greenstone recognises that non-financial reporting can present strategic and practical challenges, so it aims to make the process easier and clearer for its clients. Its enterprise-level software is easy to use and covers environment, health and safety, CSR frameworks and supply chains. The environment module enables clients to upload data from a wide range of business activities covering energy, waste, water, travel, freight and supply chains. The data is processed automatically to calculate the associated GHG emissions using various national and international frameworks. Greenstone supports clients of varying levels of size and complexity across 94 countries.
greenstonecarbon.com/+44 (0)20 3031 4000

The verdict: This system is suitable for different sized organisations and is relatively simple to use. It has been designed to work equally well with tablets and phones, so it's good for mobile data entry. Data can be imported manually or directly from equipment, such as half-hourly meters. Thresholds for data error are included, together with quality indicators allowing you to say if data are estimated. A full audit log is available to export, alongside standard dashboards and reports, and the system also supports customisation. Pages can be "pinned" to the homepage to simplify navigation for those using only certain domains. Greenstone also provides other modules, such as safety and health. The system's Windows 8 design may not appeal to all users.

Reviewers' comments: "For those looking for a comprehensive piece of software with all the essential functions and a smart user interface – this is it."

"Easy to use and has good functionality. It has a nice traffic light system to illustrate performance in meeting carbon targets."

"The combination of interface, functionality, customer service and price makes this a whole-round package. This one impressed me most."

PE International

PE International has more than 20 years of expertise in providing sustainability performance solutions. PE offers a blend of corporate and product sustainability software, and says its software – GaBi (for product sustainability and life-cycle assessments) and SoFi (for corporate and supply chain sustainability) – mean it is the only company to offer a solution for all sustainability needs. SoFi enables companies to quickly aggregate, validate and analyse sustainability information for fast, accurate sustainability reporting and improvement. PE says nine out of the 10 top "green brands" use the company's solutions, with major companies across 20 sectors using the SoFi software worldwide.
pe-international.com/+44 (0)773 964 3226

The verdict: The ongoing price of this software makes it accessible to smaller organisations. Data entry is straightforward and is available through a manual or bulk upload process or via meter outputs, including building management systems. Plausibility checks are carried out when data are entered, with tolerances varied based on the method of upload, for example. Attachments can be uploaded and the previous year's data viewed while entering new figures. The system can generate customised dashboards and reports, and has the ability to drill down to more granular data. An additional module enables users to model the impact potential technological changes will have on emissions using data from a "best practice" database. The installation and training fee adds to initial cost.

Reviewers' comments: "An impressive solution and certainly contains most of the features you would expect to see when upgrading from a system of spreadsheets."

"Has some really nice add-on features, including a performance modelling capability, which can help identify suitable targets and then put together a tailored plan of action."

"The dashboards and reports are almost infinitely customisable."

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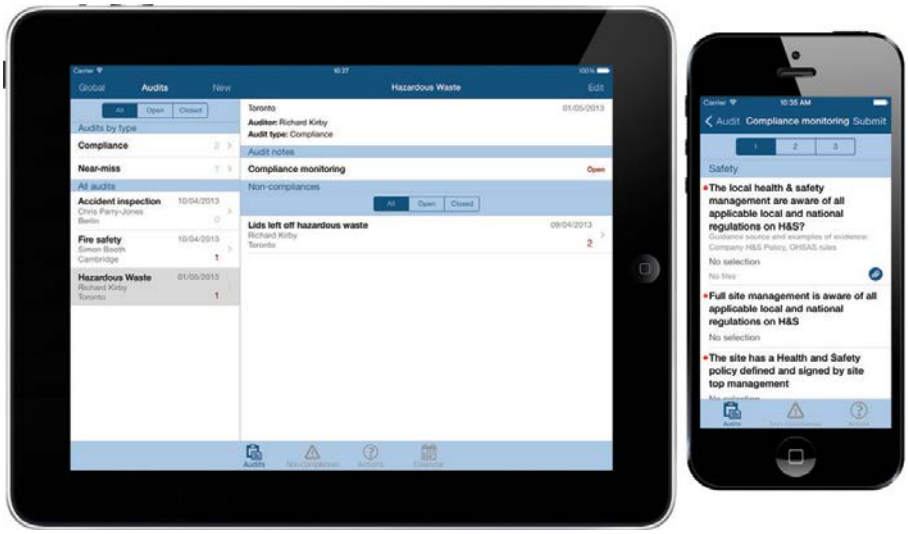

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Make sure your organisation finds the right carbon accounting solution with our guide to procurement

Analysts Verdantix predicted in 2011 that expenditure by large UK firms on carbon and energy software would more than double to $110 million in 2013, and that the global market for such software would top $558 million by 2014. However, Groom Energy's 2013 buyer's guide to sustainability software reports a slowdown in the growth of the market since 2011. Nonetheless, Groom identifies 75 vendors offering enterprise carbon accounting software, describing the market for such solutions as "early and fluid", and reports that customer needs and vendor offerings continue to evolve.

Groom found three types of software vendors in the carbon management field:

- suppliers of traditional environment, health and safety, and resource planning software, such as CA Technologies, Microsoft and SAP;
- energy management software firms like Johnson Controls and Schneider Electric; and
- sustainability specialists, including the five vendors listed in the review section (pp.22-26).

Given the variety of products available, how do companies choose the right software and vendor?

Know what you want

The first step is to draw up a comprehensive list of requirements, separated into those that are "must have" (needs) and those it would be "nice to include" (wants).

The list of needs should include only the features that the software has to deliver to support the firm's carbon management strategy. Priorities can range from the software integrating with existing systems to the ability to generate reports in line with the requirements of the Bilan Carbone in France or the CDP.

The wants list, by contrast, can be broader and ranked in order of importance. It might be useful, for example, if the software enables data sources, such as invoices, to be uploaded and stored. Likewise, the ability to customise the tools to define your own performance indicators might be desirable.

In its 2012 best practice guide on implementing carbon software, the CDP notes that multiple stakeholders means multiple requirements, and advises companies to involve all those affected in defining the needs of the carbon management solution.

Jamie Devlin, head of client services at Greenstone, says those tasked with selecting the software should start by identifying the main aim. "Ask why you need software? What is its purpose?" he says. "Too often clients will get bogged down in the detail of the system, when they should first concentrate on why they're looking for software.

"The danger is that organisations which are not reasonably clear at the beginning of the procurement process on why they need software will experience a 'beauty parade' of vendors, each offering completely different solutions. That will only spread confusion."

Gary Davis, operations director at Ecometrica, agrees: "Sometimes you are given a huge list of requirements – it's like the company has included everything it could think of – but, in reality, most of what they ask for they it will not need. It's about identifying what is important."

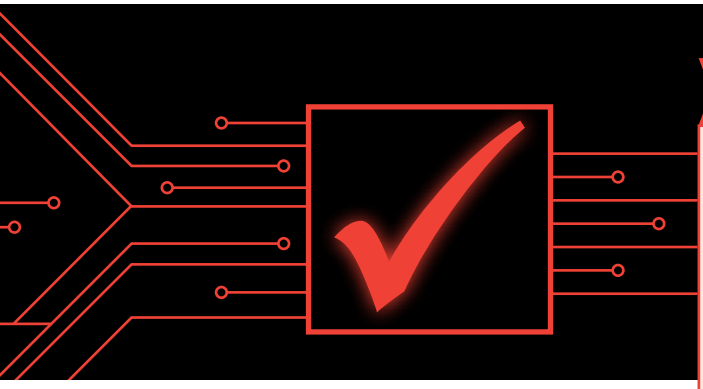
Ferne Shaw, business development manager at CRedit360, advises companies to also think about their future requirements. "Will the solution that meets your requirements now also be the best one in three or five years?" she asks. "Most organisations will have a vision of the future and will need to consider if the software is scalable over time and will be effective further down the line as they expand.

"Consider what other environment metrics you might want to report on in the future, and see what the different vendors offer in other, related areas."

Money and IT

Good carbon management software is not cheap, but costs vary enormously (see p.22 for examples). Any organisation looking to purchase such software needs to calculate how much it can afford. Typically, what's on offer is "software as a service" (SaaS), which means the system is hosted on the supplier's servers and is accessed online by users, who pay an annual or monthly licence fee. There might be additional costs, for initial set-up and training, for example, so be sure to look out for them. Maintenance and upgrades to the software – such as the inclusion of new emission conversion factors – tend to be included in the regular fee.

Most vendors are flexible on price and the common view among those in the industry is that if a vendor cannot do what an organisation wants for the available budget, then it probably does not need carbon accounting software. Davis recommends that sustainability professionals looking to buy software speak to their IT departments. "They tend to have much deeper pockets," he comments. "The cost of a carbon accounting SaaS will be a drop in the ocean for most IT departments compared with the cost of renewing licences for Microsoft Office, for example."



Top tips: selecting carbon accounting software

- Identify your key requirements.
- Determine your budget.
- Use requests for information and requests for proposals to draw up a shortlist of solutions and providers.
- Due diligence – check credentials and certificates and ask previous clients for references.
- Ask for a demonstration – take a test drive; involve all users.
- Can it scale? What are vendors' plans for development?
- Establish the true cost – check for additional fees.
- Check post-implementation support.
- Set key performance indicators.
- Agree ownership of data.

Devlin, however, cautions against allowing the IT department to control the procurement process. "Stay involved. Make sure IT understands that you require more than a few dashboards and a spreadsheet."

Aside from budgetary issues, Alistair Blackmore, sustainability consultant at CRedit360, urges procurers to involve the IT department early on in the process for practical reasons. "They will ensure the solution is deployed properly," he says. "If you don't involve them at the start, you risk them raising security 'red flags' later on, potentially derailing the implementation process and sending you back to square one."

Not just software

Selecting the right software is also about choosing the right supplier. By and large, companies in heavy polluting industries, such as oil and gas firms and utility companies, use modules from vendors in the traditional environment and health and safety sector to manage their carbon.

Meanwhile, light emitters, such as retailers and office-based businesses, often prefer software from specialists in sustainability or energy management. Selecting a vendor that is established in your sector might be the best approach.

A "request for information" asks for details of the capabilities of a vendor, while a "request for proposal" asks the supplier to outline how its software would help to deliver your objectives. Both can be used to quickly assess the suitability of a product and a vendor before drawing up a shortlist.

Getting references from vendors' existing clients, particularly ones in your sector, will provide an unbiased view of the software. Questions to ask include:

- How long have you been been using the software?
- Is the vendor knowledgeable about the sector?
- Are they experts in carbon management?
- How responsive is the customer service team?

Davis says inviting four or five vendors to demonstrate their software using test data you provide is a critical part of the selection process. "Demonstrations are one of the best ways to evaluate different solutions," he says.

Blackmore agrees. "Test scenarios might seem an obvious thing to do, but not everyone does it. If you do, you're more likely to end up with the software that's right for your organisation."

Demonstrations allow prospective clients to familiarise themselves with the interface and the how the main functions of the system work, and are a good way to narrow down potential products. Vendors will often let a prospective client trial the demo for a short time, giving those leading the procurement project the opportunity to gather feedback from staff who will regularly be using the tool.

"Send the vendors test data and ask them to go through the scenarios you can envisage going through in a reporting cycle," advises Davis. "They will have to demonstrate how the solution will work using your data.

"You'll also get a feel for the people presenting, so ask whether you can see yourself working with them."

Ecometrica's Davis also believes that preparing for the demonstration can help teams to refine their requirements. "It makes you sit down and focus on what you want." Devlin at Greenstone agrees that demonstrations are ideal to hone requirements. "Vendors are generally good at helping you to prioritise what you need. They've been through the process numerous times, so know the right questions to ask."

The 2012 best practice guide from the CDP offers the following advice: "Good providers will listen, and commit time to understanding a company's particular sustainability priorities."

Shaw urges organisations to examine a vendor's background: "Look at the firm's history. How long has it been going? Is it growing or downsizing? What are its plans to develop the software? What are the vendor's credentials? Does the CDP accredit it?"

According to Blackmore, it is rare for a system to be configured and the data inputted, and yet fail to meet the client's needs. Nevertheless, purchasers of software will need to be confident they have access to adequate support. Will technical assistance be available – online, by email or by phone – when you need it? What is the average response and resolution time?"

Once a system is installed and users have been working with it for some time, there is unlikely to be much enthusiasm for a new system. "Organisations will resist changing even if the system is not working quite as they would like it to. They will not want to start again," says Davis.

However, if the software is no longer appropriate, and the vendor cannot provide a solution that meets any revised requirements, you need to know who owns the data. So, who gets custody of the data in the case of divorce must be established before contracts are signed.

CRA Europe is pleased to announce new dates for its IEMA-approved

Carbon and Greenhouse Gas (GHG) Accounting & Management course

26th - 27th November

Nottingham Conference Centre

This two-day course is aimed at individuals who manage their organisation's carbon dioxide and other greenhouse gas emissions. The course is structured to deliver the latest information regarding greenhouse gas emissions accounting and management.

Book your place now

Go to www.cra.co.uk

to find out more details and book your place on the course.

Mandatory Reporting of Greenhouse Gases - what do you need to know?

"The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013" mandate the inclusion of GHG emissions data in company financial reports published from October 2013.

Do you understand the requirements of the regulations?

How can you make use of your existing emissions data?

What additional data might you need?

CRA has prepared a short whitepaper on options for developing a greenhouse gas accounting and reporting process to meet the requirements of the new regulations.

Download our whitepaper from www.cra.co.uk/ebooks

If you would like to discuss the regulations and the potential implications for your organisation, please contact Nigel Leehane on 0115 965 6700 or nleehane@cra.co.uk.

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Selection tool

Kye Gbangbola looks at the latest GRI guidance on sustainability reporting and its focus on materiality

The Global Reporting Initiative (GRI) launched the fourth version of its sustainability reporting guidelines – "G4" – at its annual conference in Amsterdam in May. While G3 (and G3.1) was often criticised for pressuring organisations to measure and report metrics that were irrelevant to them, G4 places greater emphasis on materiality, with the aim that users will measure only what matters where it matters.

Announcing the launch of G4, GRI deputy chief executive Nelmara Arbex said: "The increasing demand for sustainability information is inevitable. But this demand is also a demand for sustainability-related information that matters. This is what G4 is about."

According to GRI, the focus on materiality will make reports more relevant, more credible and more user-friendly. This greater focus will enable organisations to better inform markets and society on sustainability issues, claims the body behind the world's most widely used sustainability reporting framework.

Value chains

Whereas G3 was an "extent of reporting standard", labelling an organisation A, B or C based on the number of disclosures made, G4 is described as an "in accordance with" standard. It contains two options – "core" and "comprehensive" – that focus on the quality of reporting and reinforce the freedom to report only on what is "material".

Together the two options encourage reports to be more concise and offer greater clarity on issues, such as how value is created and long-term resiliencies.

G4 also requires greater integration between organisational functions and their supply chains. G3 touched on the supply chain, but offered little guidance in this area because overall it focused only on legally-owned entities – parent organisations and their subsidiaries. G4, however, is immersed in supply-chain procurement practices and includes both inside and outside reporting boundaries, which brings a major new dimension to the guidelines. Such an approach means it

becomes clearer where an organisation's responsibilities begin, end and are improved over time.

The performance of supply chains can have a significant impact on an organisation through all three dimensions of sustainability – economic, social and environmental – so G4 places greater importance on selecting suppliers and collaboration. Supply chains can increase the energy use and emissions attributed to supermarkets, for example, by a factor of 10.

Unlike the previous version, G4 requires assurers to be competent in both GRI frameworks and the reporting organisation's industry sector

Supply chains also hold significant reputational risk. Recent examples include: Primark selling products made at the Rana Plaza building in Bangladesh where 1,129 people were killed when it collapsed earlier this year; the London 2012 organising committee's decision to allow Dow Chemicals to sponsor the "wrap" on the Olympic stadium, which was condemned by campaigners because of Dow's links to the company responsible for the 1984 Bhopal disaster; and allegations that representatives of pharmaceutical company GSK bribed doctors in China.

Greater visibility

Assurance remains recommended in G4, but there is a big difference in focus between the fourth iteration of the guidelines and previous versions. Assurance in G3 can best be described as being "below the radar", whereas it is fully visible in G4. The new guidance requires assurers to be competent in GRI frameworks and the reporting organisation's industry sector. The approach provides greater trust that the assurance is thorough, consistent, has integrity and is much more integral to the reporting process.

The G4 guidelines are also more intuitive and accessible to small organisations. GRI has achieved this by producing user-friendly documentation. In addition to the more logical approach taken in G4, the new guidelines turn the G3 "standard disclosures on profile and indicator protocols" into general standard disclosures (GSDs) and specific standard disclosures (SSDs) respectively. There are no longer two types of indicator: both are considered the same, so the "core" and "additional" distinctions have been dropped. Many users will also welcome the greater detail in G4 on GSDs, which cover:

- strategy and analysis;
- organisational profile;
- identified material aspects and boundaries;
- stakeholder engagement;
- report profile;
- governance; and
- ethics and integrity.

SSDs cover an organisation's disclosures on management approach and indicators. The new reporting guidelines increase the degree of disclosure required on executive remuneration, board diversity and governance, for example, reflecting growing stakeholder interest in such matters.

Making links

G4 reinforces the guidance's links to other environmental and sustainability reporting frameworks. This is achieved by setting out how GRI reporting can best be used in combination with other reporting initiatives and standards, such as: the framework from the International Integrated Reporting Council; the Carbon Disclosure Project; ISO standards, including ISO 14001; the UN Global Compact; the mandatory greenhouse-gas reporting requirements for UK quoted companies; and the OECD guidelines for multinational enterprises.

The aim of the new guidance is to help organisations produce more concise, complete and relevant reports. With more than two-thirds of the world's largest companies adhering to GRI guidelines, global business leaders are now likely to race for the top and set about upgrading to G4. Most will be pleased to work with a framework where they are free to choose elements that are material enough to report on.

Good sustainability reporting can lead to improved profits, reduced risks and new business opportunities. For more large companies, reporting has become a mandate to operate and has enhanced their corporate reputations. Investors are more frequently refusing to lend to businesses in some sectors that fail to report non-financial information, while lowering the cost of capital to those who do.

As the essential business case becomes stronger, reporting on environmental impacts is easier than ever. Managing a firm's sustainability is a way of making it as profitable as it can be and communicating about those efforts plays a big role. Some may say that G4 is just a vehicle to make companies look good with minimal expenditure and significant return. In reality, sustainability reporting that follows the best available standard has become necessary to understand the real value of a business. G4 provides the leadership organisations need to report and transform in a way that will enable them to meet 21st century challenges.

Kye Gbangbola, MIEMA CEnv, is lead director on consultancy, training and assurance at Total Eco Management (TEM), totalecomanagement.co.uk. TEM partners with BRE to deliver a GRI-approved training programme.

The next generation

Jerome Baddley says it is time to update the definition of sustainable development

It was more than a quarter of a century ago when the Brundtland commission defined sustainable development as: "Development that meets the needs of the current generation without undermining the capacity of future generations to meet their own needs." Given that we are on the cusp of the future generations to which the commission referred, this is a good opportunity to look again at the underlying principles of sustainable development (SD) and ask: Are we succeeding? Is the language right? And has the world has changed sufficiently to require a new assessment of our common future?

Against the tide

For the past 10 years, I have included the Brundtland definition of SD in almost every presentation I have given. It is a small stand against the tidal wave of misuse and abuse of the language and theory of sustainable development. As corporations, politicians and salespeople clothe themselves in many shades of green there is a need to reassert the original message of SD, lest it drift off into a dilution of meaninglessness.

At a recent workshop for public health registrars, one delegate pleaded that we find a new word for sustainability, arguing that the term is "so overused that it is confusing". This was not the first, and certainly will not be the last, time that view is expressed.

The Brundtland commission's call in 1987 for humanity to take a long-term view has become deeply eroded by terms like sustainable economic growth, sustainable urban extension and sustainable urban drainage systems. "Unsustainable" is now more likely to mean too expensive in terms of short-term cash flow, rather than permanently damaging to the planet's life-support systems, be they ecological, environmental or natural resources.

Three generations

I find it increasingly useful to view sustainable development as a process in three generations. The first generation of SD, from the 1970s to the 1990s, saw academic awareness of the environmental limits to growth evolve against a backdrop of international crises related to the extinction of species, resource scarcity (1970s oil price shocks) and the management of toxic waste. An intrinsic tenet of the understanding of SD was that everything is connected to everything else.

Books such as Donella Meadows' *The limits to growth* (1972) put numbers on an environmentally degraded future, based on business-as-usual scenarios and potential global responses. Meanwhile, *Small is beautiful*, written by economist E F Schumacher in 1973, was well ahead of its time in proposing neat social solutions to a consumption-based economy.

Through the first generation of SD the biggest changes were driven by price shocks or crises; each time these arose, the "green" movement gathered credibility. The Centre for Alternative Technology was established in response to the oil price shocks of the 1970s. That decade also saw the US introduce the first feed-in-tariffs in a bid to encourage wind power after rapid fossil fuel price rises. The poisoning of Bhopal in 1984 forced controls on the international chemical industry. Meanwhile, toxic waste incidents, such as that of the Khian Sea – the cargo ship that travelled the world in the mid-1980s looking for somewhere to dispose its load of toxic waste before dumping most of it in the Atlantic and Indian oceans – led to international legislation on transborder movement of waste. Agenda 21 was spawned by the 1992 Rio Earth summit and looked ahead to the challenges facing the world in the next century.

Now we're in the second generation of sustainable development – 2000s to the 2020s – we need to ask

whether humanity has a reduced capacity to meet its own needs? This is the acid test for the success or failure of the first generation of environmentalists in achieving the goal of sustainable development.

The simplest, yet most powerful way to examine this is through basic economics. What has happened to the cost of limited natural resources? While we may have been able to churn out cheap energy and cheap food to support fast growth in the last generation, can we maintain this into the current generation?

The answer is no. Since 2000 there have been rises in the cost of most core natural resources and commodities. The impact of these has been dramatic. Oil price increases from 2005 were partly responsible for the financial crash in 2008, for example, while the rising cost of food has been cited as one of the key reasons for the social unrest that fuelled the Arab spring.

The change of pace in commodity price inflation since the beginning of the new millennium is a clear demonstration of the failure to adequately address SD.

The next step

The weight of evidence on man-made climate change and resource scarcity is now firmly on the side of the environmentalists and there is a growing arsenal of legal levers and a wealth of financial drivers to instigate and sustain necessary change. However, questions are now being asked about whether the Brundtland definition of SD remains the right definition for sustainability.

In the 1980s, environmentalists had a concerned vision of the future. This future is now a lot closer and uglier, and we appear destined to enter the third generation of SD still having achieved very little. Yet, the current generation has all the tools, evidence, moral leverage and financial motivation it needs to develop effective strategies to prevent future generations suffering a painful decline through resource shortage. As resources become constrained, there are two simple options: cooperate or compete.

Rising costs and the threats of resource shortage provide an opportunity to push for green growth and build a more sustainable future. The role of the second-generation environmentalist is one of building and nurturing investor confidence and steering investment away from fossil fuels, for example, towards permanent structural changes in demand reduction, social expectations and resilient local supply chains.

Perhaps the Brundtland definition could be better worded as: "Development that ensures realistic growth and consumption expectations in the current generation, while ensuring the capacity of future generations to thrive without conflict."

Jerome Baddley, MIEMA CEnv, is sustainability services manager at consultancy firm NEP Energy Services.

Vision 2020: powered by the members

IEMA's latest membership survey ended on 20 September, bringing to a close a summer-long member consultation on the development of Vision 2020.

Chief executive Tim Balcon began meeting members in July to get feedback on how they want the Institute to change over the coming years to ensure they receive maximum value, benefit and recognition from their membership.

Through a roadshow of events, a series of webinars and an online survey, more than 1,500 members have contributed their views on how IEMA should develop.

In his latest Vision 2020 blog post, Balcon stated that the "sheer scale of passion, ambition, dedication and support" members demonstrated throughout the process has been hugely beneficial and appreciated.

"This whole process – which may have been sparked by head office but had been powered by members – has been about realigning IEMA to play to its strengths," he said. "I think that reflects the personality of the membership and the environment profession; using our combined passion to our advantage, maximising our impact by concentrating on what we do best, and working on the things we know could be better."

The feedback gathered through the consultation has provided a sizable and credible evidence base, which has now been presented to the IEMA board as part of the "crafting" stage of Vision 2020. A further consultation with corporate members and other partners is ongoing, allowing Balcon to work with the IEMA council, board and professional standards committee to finalise and approve the key elements of Vision 2020 before full details are revealed to members in the new year.

Meanwhile, Balcon and all at IEMA would like to thank every member who was involved with the Vision 2020 consultation. Your contribution is invaluable and will ensure that the Institute is fit for the future.

Members can read the full version of the chief executive's latest blog at iema.net/vision2020.

New additions to training portfolio

IEMA's stable of approved training courses and providers continues to expand, with the following two approvals made recently:

- Pivotal Scotland, a health and safety and environment training and consultancy organisation based in Glasgow, is now an approved provider of the Associate certificate in environment management. Pivotal is running this course three times before the end of the year in Aberdeen and Glasgow – pivotalscotland.co.uk.
- GBC Inspections (part of the Wales Green Business Centre) now has approval to deliver IEMA's lead environmental auditor course. GBC is a provider of environment and quality auditing, consultancy and training services to businesses and public organisations across the UK, and delivers the three-day lead auditor course as standard. However, GBC also offers a two-day course, which features a reduced focus on compliance with environment legislation – walesgreenbusinesscentre.co.uk.

Members looking for high-quality, independently approved training to advance their knowledge and skills should look for the IEMA stamp of approval and visit iema.net/iema-training-courses to find full details.

Policy update

Assessing energy use

Decc is consulting on its energy savings opportunity scheme (ESOS), which implements article 8 of the EU Energy Efficiency Directive (2012/27/EU) (the EED). The scheme will require all large enterprises to complete energy audits every four years. IEMA recently held two workshops and a webinar to gather the views of members ahead of formulating its response to the consultation. Views include:

- Practitioners recognise the value energy efficiency audits can offer, especially for enterprises not caught by wider energy and carbon regulation. However, the ESOS will add further to an already crowded energy/carbon policy landscape.
- Many acknowledge that certification to ISO 14001 will not automatically address the audit requirements for large enterprises in article 8 of the EED. Nonetheless, 14001 is used effectively by many organisations for energy efficiency, especially if supported by additional energy reviews and assessments.
- The proposals rely on ensuring lead energy assessors meet a certain "standard", and the aim is to support this by developing a new publicly available specification (PAS). Many feel this process will ensure wide engagement from industry and practitioners – that is, it is not left to a small group of professional bodies. Also, there is a desire for the new PAS to be made freely available to all enterprises affected by the regulations.
- Many participants warn that there is likely to be a shortage of energy assessors, particularly initially. Concerns are around both the quality of assessors and their availability, with calls for investment in training.

IEMA's full response to the ESOS consultation will soon be available to read on iema.net.

Nick Blyth is policy and practice lead on climate change at IEMA.

IEMA member is WISTA-UK personality of the year

Dr Anne-Marie Warris, MIEMA, has been named 2013 personality of the year by WISTA-UK – part of the Women's International Shipping and Trading Association. Warris has also been put forward as the UK nominee for the international WISTA award.

Warris is an internationally respected expert in the fields of sustainable shipping, climate change and environment management, with more than 25 years of experience. In that time, she has contributed to a series of influential committees and consultations, including those conducted by: the International Maritime Organisation; the Sustainable Shipping Initiative; the Institute of Marine Engineering; the European Commission; the United Nations Framework Convention on Climate Change; and the Royal Academy of Engineering.

Warris also has a long association with the International Organisation for Standardisation, where she is chair of both the subcommittee responsible for environment management systems and the joint task coordination group for management systems.

Presenting Warris with her award, Maria Dixon, president of WISTA-UK, said: "Anne-Marie has a unique record of achievement in her field. She has long demonstrated a practical and common sense understanding of the maritime industry. She is a great communicator of sometimes complex issues, and has a down-to-earth quality that will make her an excellent ambassador for WISTA-UK and for the aims of WISTA internationally."

IEMA chief executive Tim Balcon congratulated Warris: "It's so good to know that our members are making such a positive and major contribution to our profession, and that due recognition of her achievements has been forthcoming."

Warris has been an IEMA member since 1993. As well as her Full membership, she is a principal environmental auditor and lead environment management systems auditor. Recently retired from a senior role at Lloyd's Register, she is about to launch a new business in the area of maritime, climate, environmental and sustainability.

Judging begins for the IEMA graduate award

All nominations for the 2013 IEMA graduate award have been received and are now being reviewed by the four judges ahead of a session to select this year's winner.

The award, which is sponsored by Land Securities and supported by edie.net and Sustainable Business, seeks to identify and celebrate the best talent present among those who have recently graduated and are now achieving impressive things in their first environment role. IEMA is dedicated to promoting environment skills and talent, and this is part of its ongoing commitment to ensuring graduate practitioners are recognised.

At stake is a £1,000 prize, which is to be presented jointly by IEMA chief executive Tim Balcon and Neil Pennell, head of sustainability and engineering at Land Securities, which is sponsoring the award, on 21 November during the Edie sustainable leaders awards in London.

Past graduate award winners have come from a broad range of industries and sectors, and each demonstrated exceptional ability. The 2013 nominations are also of a very high calibre, which presents a challenge for the judging panel (see below). Full details of the shortlist for this year's award will be revealed online at iema.net on 21 October.

Sponsored by: LandSecurities

Supported by: edie.net SB Sustainable Business

The judges

Diana Montgomery

Diana Montgomery is chief executive at the Construction Products Association (CPA) and chair of the IEMA board. Before joining the CPA, Montgomery worked for the Chemical Industries Association, where she raised the profile of chemical manufacturing in the UK, helping to establish its pivotal role in the delivery of the government's sustainability targets. She is a chartered environmentalist and has degrees from Oxford University and Imperial College.

Neil Pennell

Neil Pennell is the head of sustainability and engineering at Land Securities. He leads an in-house team of specialist engineers and environment professionals. He is chair of the technical affairs committee at the British Council of Offices (BCO) and has contributed to a number of BCO technical publications, including the latest edition of the best practice guide to the specification of offices. Pennell is a member of the Mayor of London's working group on energy.

Will Parsons

A business journalist for the past decade, Will Parsons is the managing editor of the water and environment division at the independent publisher Faversham House Group, which operates the sustainability news website edie.net. Parsons is responsible for a publication portfolio across print, online and live events in the sustainability, water, waste and energy sectors.

Paul Suff

Paul Suff is editor of *the environmentalist*. He is an experienced business journalist and has written extensively on the environment for more than 20 years. He was previously editor of the LexisNexis magazine *Environment in Business*. His early career was in engineering and construction, working on major projects across the UK.

Policy update

Steamlining EIA – part II

My policy column in April looked at plans by the communities department to streamline environmental impact assessment (EIA). Six months on, it is time to ask who is leading the UK towards proportionate EIA?

In 2012, the European Commission launched proposals to revise the EIA Directive (2011/92/EU), claiming the changes would streamline procedure. However, members' views – captured in IEMA's position statement – found the proposals burdensome, and it now appears they may stall in 2014. The European parliament is finalising its amendments, which risk further extending EIA procedures, while modifications by the European Council are moving in the opposite direction – towards a more pragmatic approach. If the parliament, council and commission cannot agree the text by spring 2014, the European elections will be delay the process. Thus, European plans to streamline EIA will not affect UK practice until 2016–17.

Recent action by the UK government is timely, though it may fail to significantly alter current practice. The communities department has launched streamlined EIA guidance, replacing circular 02/99. But, while the revised guidance is more accessible, it will struggle to alter the risk-averse culture that permeates assessments. The Scottish government has also revised its guidance (PAN1/2013), which, combined with local authority training, may deliver better results. Practitioners must also play their part, however.

IEMA and its EIA Quality Mark partners are therefore taking a lead. In 2014, IEMA will produce a report defining how to deliver proportionate EIA that increases its value to all parties. This project was launched at the 2013 QMark forum (p.8) and I thank all those who contributed. It is clear that as professionals we must manifest the destiny we want for EIA. Email j.fothergill@iema.net to contribute.

Josh Fothergill is policy and practice lead on EIA at IEMA.

More successful IEMA members

IEMA would like to congratulate the following individuals on successfully upgrading their membership.

Associate

Hollie-Louise Allen, Wales Green Business Centre
Darren Attreed, Hackney Borough Council
Claire Baker, Costain
Thomas Beasley, Magnox
Carl Besford, TDK-Lambda
Wayne Bowen, BBI Solutions
Daniel Amass Boyd
Gordon Brook, Babcock Dyncorp
Angela Brooks
Siri Calvert, Unilever
Kevin Carroll, Hackney Borough Council
Phillip Clarke, Nuffield Health
Vanessa Cox, Magnox Electric
James Dear, National Grid
Matt Dight
Sue Foot, Hamworthy Combustion
Richard Green, Marine Management Organisation
Lee Grierson, National Grid
Roger Helmn, Ministry of Defence
Caroline Holman, Jaguar Land Rover
Kenneth Lewell, Siemens
Pete Quennell, ABF Ingredients
James Pearson, Environ
James Perry, BMT-Isis
Nicholas Prince, Techspan Systems
Mark Redgrave, Hackney Borough Council
Alex Ruddiman, Hackney Borough Council
Trevor Smith, Froude Hofmann
Paul Stroud, Senoble UK
Primodh Sujeendran, National Grid
Matthew Williams, National Grid
Harriet Wilson

Full and Chartered environmentalist

Claire Atkins-Morris, Sodexo
Mairi Dorward, BP
Robert Duncan, Mabbett & Associates
Elizabeth Gray, Hyder Consulting
Helen Peake, Scottish Power

For more information on how to upgrade your IEMA membership visit iema.net/membership or call +44 (0)1522 540 069.

IEMA events

Date	Region/Time	Topic
18 Oct	Northern Ireland	Giant's Causeway site visit
24 Oct	Yorkshire and Humber	Environment update
1 Nov	East of England	SITA site visit
8 Nov	Midlands	Auditing update
Membership workshops		
25 Nov	South East	Full membership (London)

External professional events

Date	Region/Time	Topic	Further information
24 Oct	Cardiff	Making green computing work for your business	lexisurl.com/iema16564
29 Oct	London	Next steps for UK climate change policy: delivering the national adaptation plan	lexisurl.com/iema16566
30 Oct	Glasgow	Scottish environmental technology network	lexisurl.com/iema16571
7 Nov	London	Wrap annual conference – Vision 2020: the path to a circular economy	lexisurl.com/iema16565
12–13 Nov	London	Telco energy efficiency 2013	telcoenergyefficiency.com
13–14 Nov	London	ERA conference 2013	era.co.uk/events/era-conference-2013
14 Nov	London	Adapting to increased competition for natural resources	castledebates.org.uk
20–21 Nov	London	Luxlive 2013	luxlive.co.uk
21–22 Nov	Edinburgh	World forum on natural capital	naturalcapitalforum.com
27 Nov	London	Carbon Trust annual debate – sustainability inside	lexisurl.com/iema16563

Clare Topping

Energy and sustainability manager, Northampton General Hospital NHS Trust

Career file

Qualifications:
AIEMA, Diploma in economics, PhD in polymer chemistry, BSc Hons in applied chemistry

Career history:
2012 to now Energy and sustainability manager, Northampton General Hospital NHS Trust
2011–2012 Operations support manager, Synergy Health
2000–2011 Scheduling manager, Synergy Health
1997–2000 Chief chemist, Lamda Polytech

Why did you become an environment professional?
I've had an interest in the environment since I was at school, but more recently I was struck by the amount of "stuff" contained in the distribution warehouses near my home and about the impact it has on the planet. I wanted to do something about it and, after being made redundant, I decided to act. So, alongside applying for jobs I thought I could get, I also applied for my dream jobs. My role now is in the latter category.

What was your first environment job? This is my first official environment job, although I did perform some environment duties for my last employer.

How did you get your role?
While working as an operations support manager, I wanted to give my team a project that wasn't directly related to their day-to-day roles, so I formed a green team to look at the environmental impact of our site. One of the things we looked at was energy use, which resulted in my joining the company's steering committee on the carbon reduction commitment (CRC). From there I began to drive energy efficiency across the UK sites and to report on energy management. I believe the changes I instigated and the knowledge I gained were key in my getting my current job.

How have you progressed your environment career? I went on an ISO 14001 internal auditor course and then took the IEMA Associate certificate. I also became a member of the local environmental business network, which enabled me to network and discuss issues.

What does your current role involve? My role is as wide ranging as I want to make it. I have responsibility for utility budgets; CRC and sustainability reporting; writing business cases for energy and water efficiency technologies; compliance with legislation; waste management; and biodiversity. The list is endless and changes almost daily.

How has your role changed?
When I first started looking at environment issues, the emphasis was on reporting under the CRC, but that is changing and energy management has become just one of the areas I work across.

What's the best part of your work? The variety! From installing energy-saving technologies to improving green spaces, the projects I am involved in mean that every day is different. I also enjoy going around the hospital discussing sustainability with staff.

What's the hardest part of your job? Trying to get time with people to move projects forward. This is especially difficult in an acute NHS hospital.

What was the last training/event you attended? A two-day energy management training course at BRE.

What did you bring back to your job? A reminder of the importance of good quality data for energy management, and an insight into matrices to help us map out improvements.

What are the most important skills for your role? Organisation is very important, as there are so many different elements to my role it's easy to lose track. A willingness to ask questions is also important, as well as evaluation skills – there are a lot of technologies and consultancy services on offer. Persistence, patience and the ability to talk to complete strangers are also key.

Where would like to be in five years' time? In a sustainability role that has a higher profile in directing policy and operational decisions.

Where do you see the environment profession going?
I think it will split in future. One part will evolve in a similar way to the quality assurance profession. Meanwhile, the other will become integrated into the normal operations of an organisation, focusing on making it viable and sustainable in the coming decades.

What advice would you give to someone considering entering the profession? For those in an organisation with an environmental department I would suggest volunteering to work on projects or as a green champion. For those in a place where no one has taken responsibility for environment issues, choose an issue you are interested in and start a project that will have a positive impact on the company. I would then suggest either taking a course, such as the Associate certificate, or a free online course to find out more about the field. Anyone new to the sector will be surprised how many transferable skills they can bring across from a different discipline.

How do you use IEMA's environmental skills map? As I aim to apply for full membership, I used it initially to assess where I had gaps in my knowledge and skills. I then looked for projects that would help to fill those gaps.

Chair, Compliance Review Panel

Applications or nominations of candidates from Asian Development Bank's (ADB) regional member countries (member countries located within the Asia and Pacific region) are invited to fill a full-time position of the Chair, Compliance Review Panel (CRP). ADB's vision is a region free of poverty. Established in 1966 and headquartered in Manila, Philippines, ADB's multicultural staff come from about 67 members.

The CRP is responsible for the compliance review phase of the ADB's Accountability Mechanism, reporting to ADB's Board of Directors. The CRP investigates alleged noncompliance by ADB in any ADB-assisted project that adversely affects local people. The Office of the Compliance Review Panel (OCRP) will support the work of the CRP. The OCRP is headed by the CRP chair.

We seek candidates with:

- Suitability to undertake the managerial and leadership responsibilities of the head of the OCRP
- Strong and broad educational background (Master's degree, or equivalent, in Economics, Environment, Law, or Social Sciences, or related fields) and practical experience in development, particularly in environmental, social, economic, legal, and/or private sector fields
- 15 years of relevant experience and demonstrated knowledge of compliance review or related field, including the ability to deal thoroughly and fairly with requests for investigation or redress is desirable
- Highly developed communication and diplomatic skills to work effectively within ADB (staff, Management and Board of Directors) and externally with ADB clients, member governments, other international organizations and comparable institutions, civil society, and nongovernmental organizations
- Excellent command of written and spoken English
- Ability and willingness to travel to developing countries, including rural areas
- Ability to deal thoroughly and fairly with requests brought to the CRP
- Exposure to developmental issues and living conditions in developing countries
- Integrity and independence from Management
- Knowledge of, and experience with, the operations of multilateral development organizations or comparable institutions, and/or private sector experience
- International experience working in several countries

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Closing date for application is on **4 November 2013**.

Women are encouraged to apply.

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Asian Development Bank ADB

Consultant Environmental Planner (Environmental Impact Assessment) Glasgow

LUC
Environmental Planning Design & Management

About us:

LUC is dedicated to conserving and enhancing the environment and promoting sustainable development on behalf of our clients. With more than 45 years' experience, our specialist team of over 100 staff is located across four UK offices. Our work is underpinned by core values of respect, integrity, drive and excellence.

Our clients include central, devolved and local government, public sector agencies, regulatory bodies, private sector companies and the third sector, both UK and overseas.

About the role:

We are looking for an Environmental Planner with 2 or more years' experience in EIA, ideally including wind energy projects. You will be responsible for contributing to our EIA projects, which currently include wind energy developments and associated energy infrastructure. The role will include supporting EIA project managers in the delivery of EIA projects, including liaising with project team members, clients and external organisations; managing survey programmes and organising access to sites; producing Environmental Statement (ES) chapters.

About you:

You will have a good degree in a relevant discipline and preferably will have completed a post-graduate qualification in, or covering, EIA.

IEMA Membership at an appropriate level is desirable but not essential.

Candidates must have good organisational skills with the ability to manage tasks and time, using initiative. Also important for this role are excellent communication skills, report writing and the ability to build effective relationships with colleagues and clients.

To apply please email your CV and a covering letter, quoting reference 2013-21 to Mary Woodman, HR Manager at HR@landuse.co.uk

LUC is an equal opportunities employer. LUC is a registrant of the Institute of Environmental Management and Assessment's (IEMA) EIA Quality Mark Scheme.

Closing date for applications is 12 noon Friday 11 October 2013.

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